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ABSTRACT

Minutes of the 1980 National Marine Education Association annual board of directors' meeting are presented in this document. Included are 16 appendices (representing a major portion of the document) containing materials prepared for the meeting. These materials, which reflect the major areas addressed during the meeting, include: 1980 board of directors meeting agenda; association operations calendar; Curriculum Committee report and directions/goals of this committee; income and balance statement (August 7, 1979 through July 31, 1980); Council of Chief State School Officers Marine Education Activities 1979-1980); Honorary Membership Committee report; annual election information and ballot; Public Relations Committee forms; report on "Current: The Journal of Marine Education" and subscription form; membership category information; marine science education program descriptions; description of Northeast Conference on Marine Education for the Early Adolescent; 1981 conference information; a proposal for developing the Marine Education Network (seeking support for one national and four regional workshops to familiarize state marine education coordinators with marine-related materials, organizations, and programs necessary for diffusion of marine education in their school systems); and proposed 1980-1981 budget. Various committee reports (nominations, honorary and student membership, professional development/continuing education, and others) and other association business are included. (JN)

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MINUTES OF THE 1980 NATIONAL MARINE EDUCATION
ASSOCIATION ANNUAL BOARD OF DIRECTORS
MEETING

BY

Richard M. Schlenker
Maine Maritime Academy
Castine, Maine 04421
October 1980

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Appendix P is not included.

I MEETING LOCATION AND TIME

A. The 1980 National Marine Education Association annual Board of Directors meeting was held at Salem State College, Salem, Massachusetts.

B. The meeting convened at 2:40 P.M. EDT, August 4, 1980.

II ATTENDANCE

A. The following constitutional officers and members of the Board of Directors were present: Robert Abrams, President; Richard Schlenker, Secretary Susan Gammisch, Treasurer; Barbara Klemm; Lester Picker; Wesley Eatten; Leslie Lin; Nancy Richardson; James Lanier.

B. The following constitutional officers and members of the Board of Directors were absent: John McMahon, Immediate Past President; James Schweitzer, President-elect; Arie Korporaal; Rosanne Fortner; Kenneth Stibolt; Micky Weiss.

C. The following additional people were in attendance: James Hannahan, Chair of the Vocational Education Committee; David Marsh, Chair of the Public Relations Committee; Frank Sullivan, Chair of the Curriculum Committee; Ronald Bilodeau; James Centorino.

III MINUTES OF THE 1979 BOARD OF DIRECTORS MEETING

A. It was moved by Mr. Lanier, seconded and carried that reading of the minutes from the 1979 Board of Directors meeting be waived and further that those minutes be accepted as they were submitted to the Board on September 9, 1979.

IV AGENDA OF THE 1980 BOARD OF DIRECTORS MEETING

A. Mr. Abrams presented the Board with a meeting agenda. The agenda is included as Appendix A of these minutes.

V ASSOCIATION CALENDAR

A. Messers. Picker and Marsh suggested the Association adopt a systems approach in conducting its business.

B. Messers. Picker and Marsh presented an operations calendar to the Board. The calendar is included as Appendix B

of these minutes.

VI OLD BUSINESS

A. Committee Reports

1. Conference Committee (Report by Messers. Frank Sullivan and James Centorino).

a. Conference Registration - There were approximately 300 preconference registrants. The figure includes single day attendees.

b. Conference Costs

- i. Printing \$885.00
- ii. Postage \$300.00
- iii. Office Supplies \$75.00
- iv. Student Help \$784.00

c. Projected Income

- i. 100 participants at \$40.00 each \$4000
- ii. 100 participants at \$50.00 each \$5000
- iii. 20 participants at \$75.00 each \$ 300

d. The sale of books and other items at this and successive conferences was discussed.

i. Mr. Marsh and Ms. Richardson suggested 10% of the sale price of such items should be turned over to the Association treasury.

ii. Mr. Picker suggested standards be established for sale items. Items accepted for sale at NMEA conferences would have to meet these standards before they could be offered for sale.

iii. Ms. Lin suggested the Chairs of the Public Relations and Conference Committees decide upon what items are accepted for sale at NMEA conferences since it is they who must deal with vendors. The guidance offered by Ms. Lin was that items offered for sale at Association conferences be consistent with the goals of the NMEA.

iv. The discussion was tabled without action.

e. The meeting recessed at 5:05 EDT.

f. The meeting reconvened at 5:30 EDT.

2. Robert Stegner Memorial Lecture Committee (Report by Ms. Nancy Richardson).

a. Captain Irving Johnson will present the first Stegner Memorial Lecture and will not accept an honorarium for his service.

i. The Board suggested the Association offer to reimburse Captain Johnson for his travel expenses.

b. Ms. Gammisch reported that the Stegner Lecture fund, at present, contained \$678.05.

c. The Board recommended to the incoming President that Ms. Richardson be appointed to Chair the 1981 Stegner Lecture Committee.

i. The Board further suggested that a person from Texas be appointed to work with Ms. Richardson.

3. Sail Training Packet (Report by Ms. Nancy Richardson).

a. Ms. Richardson reported that she has authored a document titled, Directory of Sail Training Ships and Programs.

i. It was moved by Mr. Picker, seconded and carried that the Association officially thank Ms. Richardson for her work on the Directory.

ii. It was moved by Ms. Lin, seconded and carried that Ms. Richardson write a second edition of the Directory.

(a). The Board recommended that Ms. Richardson be reimbursed from the Association treasury for costs incurred in production of the second edition.

4. Vocational-Technical Education Committee (Report by Mr. James Hannah).

a. The size of the Committee was enlarged over the past year.

b. The Committee was inactive during the year.

5. Curriculum Committee (Report by Mr. Frank Sullivan).

a. The direction, goals and report of the Committee are included as Appendix C of these minutes.

6. Professional Development and Continuing Education Committee (Report by Ms. Barbara Klemm).

a. The Committee recommend-d that the Board approve establishment of an Outstanding Marine Educator Program.

i. The Chair of the Professional Development and Continuing Education Committee will establish guidelines for the granting of said awards.

ii. The program will be regional. Outstanding marine educators will be chosen for regions established for award purposes such that an outstanding educator is chosen from each region.

iii. Initially, awards will be given only to elementary and secondary educators.

B. Association Membership

1. Membership Lists

a. The problem of keeping membership lists updated was discussed.

i. Mr. Picker will publish a change of address form in Current.

b. Mr. Sullivan suggested Association membership lists be sold to interested parties at \$50.00/copy.

ii. It was moved, seconded and carried that Ms. Gammisch be charged with drafting guidelines for the sale of such lists.

C. Association Needs Assessment

1. The need for an Association membership profile was discussed.

a. A profile is necessary of the Association is to serve its membership to the greatest extent possible.

b. A committee, Chaired by Ms. Klemm and consisting of Ms. Richardson, Mr. Marsh and Mr. Schlenker was formed to conduct the assessment.

c. Ms. Klemm will seek the aid of the University of Hawaii's Research and Development Center in tabulating the results of the survey conducted in collecting profile data.

D. Certificates of Merit and Appreciation

1. Mr. Abrams suggested the Association develop such certificates.

a. A committee, Chaired by Mr. Abrams and consisting of Mr. Marsh, Ms. Lin and Ms. Richardson, was formed to draw, construct or otherwise find an appropriate certificate design.

b. It was moved, seconded and carried that Mr. Batten be allowed to expend whatever funds are required, from the Association treasury, to cover registration fees.

G. Council of Chief State School Officers (CCSSO) Policy Statement (Report by Mr. John McMahon).

1. On August 2, 1979, the CCSSO established a marine education committee. The 1979-1980 CCSSO marine education activities are included as Appendix E of these minutes.

2. To date, forty states have appointed marine education coordinators.

3. It was moved by Ms. Lin, seconded and carried that the forty state marine education coordinators receive Current, that a cover letter accompany the first issue of Current and further that Current be sent to the Chief State School Officer in the states where a marine education coordinator has not yet been appointed.

H. Additional Committee Reports

1. Honorary Memberships Committee (Report by Mr. John McMahon).

a. At present, the following individuals hold honorary memberships in the Association; Mr. Thayer Schafer; Mr. Hal Goodwin; Mrs. Libby Goodwin.

b. The Committee report is included as Appendix F of these minutes.

c. It was moved, seconded and carried that Mr. Will Hon be awarded honorary membership in the Association.

d. It was moved by Ms. Richardson, seconded and carried that Captain and Mrs. Ecta Johnson be awarded honorary membership in the Association.

e. It was moved by Ms. Klemm and seconded that Jacques Cousteau be awarded honorary membership in the Association.

i. It was moved by Mr. McMahon, seconded and carried that the motion to award Mr. Cousteau an honorary membership be tabled.

2. Nominations Committee (Report by Mr. Abrams).

a. Mr. Abrams discussed the reasons for the late mailing of this years ballot.

i. Ms. Norma Bagnall, original Chair of the Nominations Committee, resigned late in the fall of 1979.

ii. The Committee Chair was offered to Mr. McMahon but declined because the Association Bylaws would not allow him to serve in that capacity.

i. Ms. Lin volunteered the services of the University of Michigan Sea Grant graphics personnel in designing the certificate.

2. The meeting was recessed at 7:45 P.M. EDT.

3. The meeting reconvened at 9:00 A.M. EDT, August 5, 1980.

a. In addition to those individuals mentioned above, the following were present when the meeting reconvened; John McMahon, Immediate Past President; Board of Directors members, Arie Korporaal, Rosanne Fortner.

E. Preliminary Financial Report (Report by Ms. Susan Gammisch).

1. The income and balance statement for the period August 7, 1979 through July 31, 1980 is included as Appendix D of these minutes.

2. Ms. Gammisch notified the Board that Wells Fargo Bank of San Francisco had not been providing adequate services to the Association.

a. Bank statements have not been received in a timely manner.

b. Cancelled checks have not been received in a timely manner.

c. Ms. Gammisch moved that the Association account with Wells Fargo be closed and further that a new account be opened at a bank in the area where the Treasurer lived.

i. The motion was modified by Messers. Picker and McMahon to read that funds be transferred to a bank with regional offices.

ii. The motion as modified was accepted by Ms. Gammisch, seconded and carried.

d. The August 7, 1979 Association bank balance was \$3,312.58.

e. The estimated July 1, 1980 Association bank balance was \$8,429.48.

F. Logo Registration

1. The Association logo has not yet been registered with the Federal Government.

a. Mr. Batten volunteered to finish work on the registration procedures.

iii. Ms. Karen Hensel agreed to Chair the Committee but by this time it was early 1980.

iv. Ballots were scheduled for mailing June 15, 1980 and for return, July 15, 1980 (See Appendix G).

v. Mr. Abrams was unable to secure the candidates' autobiographical data early enough to allow meeting the ballot mailing date set by the Secretary (See Appendix G).

3. Publications Committee (Report by Mr. Korporeal).

a. During the past year, several book companies were contacted about offering their publications to Association members at reduced prices, however, the companies contacted did not respond.

b. Use of the word "current."

i. Old Dominion University publishes a newsletter titled Currents.

ii. A commercial firm named Currents Inc. was located.

iii. A Cape Hatteras newspaper named Current was located.

c. Curriculum materials evaluation.

i. The Committee is developing guidelines to which educational materials supported by the Association will have to adhere.

ii. Ms. Klemm suggested limit its consideration to materials which the Association will offer to its membership.

iii. Ms. Lin suggested the Committee consider two types of publications:

(a) Publications endorsed by the Association

(b) Publications distributed by the Association

d. Conference Proceedings.

i. It was moved by Mr. Korporeal, seconded and carried that the Chair of the Conference Committee appoint a person on that Committee responsible for putting together a conference proceedings following the annual conference.

ii. Mr. Picker recommended that prior to inclusion in the Conference Proceedings, documents be evaluated by

an Ad Hoc editorial board.

e. Conference sessions abstract.

i. The Committee recommended that each year, prior to the annual conference, the Conference Committee publish abstracts of the sessions.

f. The meeting recessed at 12:30 P.M. EDT.

g. The meeting reconvened at 1:45 P.M. EDT.

h. The Association brochure was discussed and the Committee recommended the following:

i. The brochure be printed in half tones.

ii. That 10,000 copies of the brochure be printed. Based upon Mr. Marshes figures, the cost of this operation would be \$1,200.00.

iii. Ms. Lin volunteered to obtain a brochure printing price from the University of Michigan Press and report back to the Committee.

4. Public Relations Committee (Report by Mr. David Marsh).

a. Association display board.

i. The display board folds and can be shipped easily in two packages.

ii. The board cost approximately \$203.00 to construct.

iii. It is intended that the display board be set at NMEA and other conferences as a method of advertising the Association.

b. The Committee recommended that stick pins be sold as a method of advertising the Association. In lots of 1000, such pins cost \$2.49 - \$2.60.

c. The New Release form developed by the Committee is included as Appendix H of these minutes.

d. The Affiliate Membership form developed by the Committee is included in Appendix H of these minutes. Copies of said form are available from Ms. Gammisch at VIMS.

e. The Committee is working on a T-shirt design. When available, the T-shirts will be used as another method of advertising the Association.

f. Mr. Marsh was commended by the Board for his efforts with the Committee over the past year.

g. It was moved by Mr. Picker, seconded and carried that Mr. Marsh establish guidelines for the use of the display shipment of the display board.

i. Guidelines for use of the board are to be sent to the President for distribution to the Board of Directors by September 10, 1980.

h. Mr. Picker recommended that by October 10, 1980 Mr. Marsh forward to Mr. Schweitzer a suggestion of one item to be sold at the 1081 NMEA conference.

i. Ms. Lin stated that University of Michigan Sea Grant would print multiple copies of the Association Constitution and Bylaws for distribution as a method of advertising the Association.

5. Current Committee (Report by Mr. Lester Picker and Ms. Fleda Jackson).

a. The Committee report is included as Appendix I of these minutes.

b. From hence forward, Hal Goodwin will write an article for each issue of Current.

c. Advertising.

i. It is intended that within the next three years, the Journal become self sustaining. It would be supported completely by advertising.

ii. Starting with the November 1980 issue of Current, the editors of Current will swap advertising with the Editors of American Biology Teacher.

d. The subscription form developed by the Committee for Current is included as Appendix I of these minutes.

e. Copyright. The editors are in the process of having Current copyrighted.

f. The Committee suggested the editor of Current have a permanent position on the Association Board of Directors.

g. Mailing of Current.

i. The present system used for mailing Current is unsatisfactory. Mailings are often late resulting in advertising being dated by the time the Journal reaches the hands of the users.

ii. Possible solutions to the mailing problems.

(a) Use of the University of Delaware, College of Marine Studies bulk mailing permit.

(b) Current or the Association could purchase its own mailing permit.

(c) The Association could employ the services of Allen Press Inc. (See Appendix I).

h. Current funding and expenditures.

i. The University of Delaware Sea Grant program has been asked to fund the production of one issue of Current during the coming year. This amounts to a grant of approximately \$1,500.00.

ii. During the past year, Office of Coastal Zone Management, U.S. Department of Commerce, Washington, D.C. provided \$1,500.00 of \$2,100.00 required for one 3000 copy run.

iii. The editors' goal this year is to generate 25% of the coming years production costs through advertising.

iv. It was moved by Mr. Korporeal, seconded and carried that the budget as shown in Appendix I be approved with the addition of a \$100.00 line item for telephone calls.

v. The Committee informed the Board that Ms. Fran Price was paid \$200.00 for work on Current, however, she was not entitled to receive said monies. Payment was made by Ms. Gamisch in response to a bill submitted by Ms. Price.

vi. The \$200.00 was actually owed to Ms. Jackson. It was moved by Mr. Picker, seconded and carried that Mr. Picker use monies from the Association treasury and pay Ms. Jackson the \$200.00 owed her.

vii. It was recommended by Mr. Picker that each Board member write Carolyn Throughgood a letter of thanks for funding she has provided for Current.

i. It was moved by Mr. Korporeal, seconded and carried that the Association Secretary send Ms. Jackson and Mr. Picker a letter of appreciation for their work on Current.

6. Chapters Committee (Report by Mr. James Lanier).

a. Present Chapter status. At present, the following organizations hold Chapter status in the NMEA.

i. The Mid-Atlantic Marine Education Association.

ii. The Gulf of Maine Marine Education Association.

iii. The New York State Marine Education Association.

b. Motions for Chapter status.

i. It was moved by Mr. Batten, seconded and carried, that the Northwest Association of Marine Educators, having fulfilled all of the necessary prerequisites as outlined in the Association Bylaws and having had their Constitution approved by the Association Board of Directors be granted Chapter status in the NMEA.

ii. It was moved by Ms. Fortner, seconded and carried, that the Connecticut Marine Education Association, having fulfilled all of the prerequisites as outlined in the Association Bylaws and having had their Constitution approved by the Association Board of Directors, be granted Chapter status in the NMEA.

c. Chapter representation on the NMEA Board of Directors.

i. It was moved by Mr. Abrams that a representative from each Chapter be seated as a member of the Association Board of Directors and that each Chapter representative be selected yearly by the respective Chapter.

(a) The motion was not seconded.

(b) The motion was defeated in a straw vote because Chapter members would have a greater vote than individuals who did not belong to Chapters. Chapter members would be able to vote for Chapter representatives as well as Directors at large.

(c) The Board suggested the matter be studied and a regional director concept be considered.

d. The meeting recessed at 5:12 P.M. EDT.

e. The meeting reconvened at 9:00 P.M. EDT.

VII. NEW BUSINESS

A. Dues Structure

1. It was moved by Mr. McMahon and seconded that the deadline established on page 6, paragraph C.1. in the Minutes of the 1979 Annual Board of Directors Meeting of the National Marine Education Association be extended because misinformation had been publicized.

a. The motion was amended by Ms. Richardson to extend the deadline of (01) year to 1981. As amended, the second sentence of that paragraph in the 1979 minutes should read, "This applies to Chapter status granted prior to the 1981 annual meeting of the NMEA."

b. The motion was carried as amended.

2. The meeting reconvened at 8:30 A.M. EDT, August 6, 1980. In addition to those present as indicated above, the following individuals were present at this meeting: Micky Weiss and Kenneth Stibolt, members of the Board of Directors.

B. Affiliate Groups (Discussion conducted by Mr. David Marsh and Ms. Susan Gammisch).

1. The Affiliate Membership Application Form was discussed. The form is included in Appendix H of these minutes.

a. It was moved by Ms. Lin, seconded and carried that the form be adopted as is.

b. It was moved by Mr. McMahon, seconded and carried that the Board recommended to the General Membership the

2. The meeting recessed at 11:45 P.M. EDT.

3. The meeting reconvened at 8:30 A.M. EDT, August 6, 1980. In addition to those present as indicated above, the following individuals were present at this meeting: Micky Weiss and Kenneth Stibolt, members of the Board of Directors.

B. Affiliate Groups (Discussion conducted by Mr. David Marsh and Ms. Susan Gammisch).

1. The Affiliate Membership Application Form was discussed. The form is included in Appendix H of these minutes.

a. It was moved by Ms. Lin, seconded and carried that the form be adopted as is.

b. It was moved by Mr. McMahon, seconded and carried that the Board recommend to the General Membership the following change to the Association Bylaws, Article II, Section I under Affiliate Organizations be changed such that the words, "membership list and" be struck.

2. Thus far, the following organizations have indicated an interest in Affiliate Membership in the Association.

- a. American Sail Training Association.
- b. Northeast Independent School System.
- c. Marine Technology Society.
- d. Project Coast Watch.
- e. Marine Option Program (University of Hawaii).
- f. Texas A&M Sea Grant Program
- g. South Houston High School.

h. Ocean Research and Education Society.

i. Marine Education Association of Texas.

3. It was moved by Mr. Lanier, seconded and carried that the Association exchange Affiliate Memberships with the Marine Technology Society without financial exchange.

4. Mr. Marsh recommended that the Association change its membership categories to include some of those used by other organizations. He suggested the Association consider a membership structure like that of the International Telecommunication Association. This group's membership structure is included as Appendix J of these minutes.

a. The Board recommended that the incoming President review the Association membership categories and, if necessary, form an Ad Hoc committee to consider the issue.

C. Minorities in Marine Education (Discussion conducted by Mr. James Hannahan).

1. During the past year, a meeting was held to consider minorities in marine education. A working paper on the subject grew out of the meeting.

2. It was moved by Mr. Picker, seconded and carried that the incoming President establish a standing committee on minorities and women in marine education.

D. Marine Science Awards Programs

1. Mr. Hannahan introduced the Board to three marine science education awards programs. A description of the Navy's program, its recent winners and addresses of other program managers are included as Appendix K of these minutes.

E. Address by Mr. Robert Shepard, Associate Director of the National Sea Grant Program.

1. In his address, Mr. Shepard stressed the following points:

a. Sea Grant will continue to support Marine education.

b. In the future, Sea Grant will play a catalyst role in marine education.

c. The power of the NMEA has been recognized in the Department of Education.

d. In 1977, a memorandum of agreement regarding cooperation in marine education was drafted and signed by officials of the National Sea Grant Program and the then U.S. Office of Education.

i. The memorandum has not yet been reaffirmed by the Department of Education.

e. Sea Grant's goal is to see marine education in every school in the U.S.

f. Full time Sea Grant marine education person.

i. Sea Grant will establish a full time marine education position within its structure.

ii. The first task of the person hired for this position will be to work on professional development of the state Sea Grant directors in the marine education field.

F. Regional Marine Education Conferences (Discussion conducted by Mr. Frank Sullivan).

1. The Northeast Conference on Marine Education for the Early Adolescent. The second draft of the program is included as Appendix L of these minutes.

a. Funding for the program has been requested from the National Science Foundation.

b. The program is scheduled for the last week of July 1981, however, the program location is yet to be established.

c. The program objective is to bring together regional marine education directors and school administrators.

d. It was moved by Mr. Korpelaar, seconded and carried that the Association support and encourage the development of this program and its associated proposal.

G. The McManus Proposal (Discussion led by Mr. James Lanier).

1. McManus Associates propose to develop a financial plan for the Association. If developed, the plan would include ways in which the Association could, without cost to the membership, increase its financial posture.

a. A portion of the monies gained from this plan would go to paying McManus for their services.

2. It was moved by Ms. Klemm, seconded and carried that the Association Executive Committee and the past presidents form a steering committee to guide financial development of the Association.

3. The McManus proposal was turned over to Mr. Schweitzer.

H. Allan Press (Discussion conducted by Mr. Korporeal). This is a continuation of the discussion started as part of the consideration of Current Mailing Problems.

1. Mailing labels would cost 2¢-2½¢ each when purchased from Allan Press.

2. It was moved by Mr. McMahon and seconded that the Association accept the services of Allan Press for the purpose of Maintaining Association records.

a. The motion was amended by Mr. Picker to charge the Treasurer with development of a systematic approach to implementing this service as it relates to the Journal.

i. The ammendment was accepted by Mr. McMahon and the motion was carried as ammended.

3. The meeting was recessed at 12:55 P.M. EDT.

4. The meeting reconvened at 2:45 P.M. EDT.

I. Massachusetts Marine Educator's Proposal (Brought to the Board by the President of MME).

1. MME partitioned the Association Chapter status under the following conditions.

a. MME be allowed to have two classes of membership.

i. Associate members who belong only to MME.

ii. Regular members who belong to both MME and the NMEA.

b. It was moved by Ms. Richardson and seconded that the Association grant MME their partition for a period of one year.

i. The motion was withdrawn.

c. It was moved by Mr. Weiss, seconded and carried that Massachusetts Marine Educators be granted Chapter status in the NMEA in accordance with the Bylaws of the NMEA. The granting of said Chapter status is contingent upon and not effective until receipt of the required documents from MME in accordance with the Bylaws of the NMEA.

2. The meeting was recessed at 4:30 P.M. EDT.

3. The meeting reconvened at 9:30 P.M. EDT.

J. 1981 Conference (Discussion conducted by Vi Lien and John Hunt).

1. Information concerning the 1981 conference to be held in Galveston is included as Appendix M of these minutes.

2. It was moved by Mr. Abrams, seconded and carried that Vi Lien and John Hunt be appointed as co-chairs of the 1981 Conference Committee.

K. 1982 Conference

1. It was moved by Mr. Picker, seconded and carried that the President-elect be directed to investigate site for the 1982 conference.

2. It was moved by Mr. Picker and Ms. Fortner that the President-elect be directed to correspond with the President no later than October 10, 1980 identifying possible sites for the 1982 and 1983 conferences. This information is to be included in the October 30 President's Report.

L. Proposal for Developing the Marine Education Network (Discussion conducted by Ms. Barbara Spector).

1. A copy of the revised proposal and associated documents are included as Appendix N of these minutes.

2. The Board was not consulted during the design states of the proposal even though the proposal deals with areas vital to the interests of the NMEA.

3. Mr. Picker was appointed to Chair a committee to evaluate the proposal and report to the Board Friday morning, August 8, 1980.

M. Proposed 1980-1981 Association Budget

1. The proposed budget is included as Appendix O of these minutes.

2. It was moved by Mr. Abrams, seconded and carried that Ms. Gammisch be authorized to expend \$1,625.00 from the Association treasury to be used as up front money for the 1981 conference.

3. The meeting was recessed at 11:30 P.M. EDT.

4. The meeting reconvened at 7:10 A.M. EDT, August 8, 1980.

N. Report of the Committee on the Marine Education Network Proposal (Mr. Picker, Chair; Messrs. Sullivan, Lanier, Korpelaar and Ms. Klemm, members).

1. The Committee felt that conceptually, the proposal was valid.

2. The Committee recommended the Association not

endorse the proposal at this time for the following reasons:

- a. Texas A&M is not a good base for the project.
- b. The proposal time line is too short.
- c. The procedures for selection of marine education materials are vague.
- d. Guidelines for publication of marine education curricula have not been established.
- e. Marine Technology Society's involvement in marine education is not clear.
- f. Marine Technology Society is to write the final report.
- g. The project will thrust Marine Technology into a Marine Education role not consistent with its history.
- h. The major oversight of the proposal is that it does not make use of professional marine education groups like the NMEA.
- i. The project is not cost effective.

3. It was moved by Mr. Batten, seconded and carried that the President-elect act as contact person concerning the proposal and further, that he respond to the proposal making known the concerns of the Association Board and further that he keep the Board advised of discussion concerning the proposal.

a. The Board directed the President-elect to communicate to Texas A&M and others that the Association does in fact endorse the concept but not the proposal.

4. The meeting was recessed at 8:45 A.M. EDT.

5. The meeting reconvened at 12:00 P.M. EDT.

0. 1980-1981 Committee Chairs and Association Historian

1. Mr. Abrams recommended the following individuals be appointed as indicated:

a. Mr. McMahon, Association Historian and CCSSO Liaison (the latter declined by Mr. McMahon).

b. Mr. Marsh, Chair of the Public Relation Committee.

c. Ms. Klemm, Chair of the Public Relation Committee.

d. Mr. Kahn, Chair of the Vocational Education

Committee.

e. Mr. Bilodeau, Chair of the Museums and Aquaria Committee.

f. Mr. Korporeal, Chair of the Publications Committee.

g. Mr. Sullivan, Chair of the Curriculum Committee.

h. Mr. Abrams and the past-presidents to serve as the Nominations Committee.

i. Mr. Abrams, Chair of the Awards Committee.

j. Ms. Lien and Mr. Hunt, Co-chairs of the 1981 Conference Committee.

2. It was moved by Mr. McMahon, seconded and carried that the guidelines used by the Chair of the Professional Development Committee for conduct of committee business be approved for and used by all Association committees chairs.

a. Copies of said guidelines are available from Ms. Klemm.

3. Mr. Lanier agreed with the help of Mr. Picker to act as CCSO liaison.

P. 1981 Conference Dates and Board of Directors' Meeting

1. It was moved by Mr. Weiss, seconded and carried that the 1981 conference be held during the first week of August 1981.

2. It was moved by Mr. Abrams, seconded and carried that 1981 Board meeting be held Sunday, Monday and Tuesday of the first week in August.

Q. Association Dues Structure.

1. It was moved by Mr. McMahon, seconded and carried that the Treasurer evaluate the Association dues structure and make recommendations in this regard to the President by January 10, 1981.

R. Student Membership.

1. It was moved by Mr. McMahon that the Association establish a student membership category.

a. Information reflecting this proposal is included as Appendix P of these minutes.

b. The motion was not seconded.

VIII. ADJOURNMENT

A. There being no further new business, the Annual Meeting of the Board of Directors of the National Marine Education Association was adjourned at 1:23 P.M. EDT, August 8, 1980.

Respectively submitted,

Richard M. Schlenker, Secretary
October 18, 1980

UNITED STATES
DEPARTMENT OF AGRICULTURE
BUREAU OF COTTON

APPENDIX A

1980 Board of Directors Meeting Agenda

NATIONAL
MARINE
EDUCATION
ASSOCIATION

Proposed AGENDA

Meeting: 4 August 1980

To: Board of Directors, Officers, Any Interested Member

Convening at 1400 in the Presidential Dining Room of the Student Union at Salem State College, Salem, Massachusetts, and continuing at 1200, 6 August with appropriate recesses.

1. Call to Order: President R.D. Abrams.
2. Introductions.
3. Review of the minutes of the last Annual Meeting, August 1979.
4. Review of the agenda: additions; time scheduling.
5. Treasurer's preliminary report (Gammisch).
6. Report of the 1980 National Conference Committee (Centorino, Kaufman, Rauschenback).
7. Chief State School Officers Policy Statement (McMahon).
8. Recommendation for Association Historian.
9. Committee Reports.
 - A. Honorary Membership (McMahon)
 - B. Nominations (Hensel, Abrams, Schlenker)
 - C. Stegner Lecture (Richardson)
 - D. Sail Training Ship Packet (Richardson)
 - E. Voc-Tech. (Hanrahan)
 - F. Museums & Aquaria (Wilson)
 - G. Curriculum (Sullivan)
 - (1) Wetlands curriculum materials
 - (2) Linkage of curriculum centers
 - (3) Northeast Conference on marine education for the Early Adolescent
 - (4) Other
 - H. The journal, Current (Picker)
 - I. Publications (Korporaal)
 - J. Professional Development and Continuing Education (Klemm)
 - K. Certificates of merit and appreciation
 - L. Membership
 - M. Chapter status
 - N. Public Relations (Marsh)
10. The growth of NMEA Chapters.
 - A. Motion for discussion: The Board of Directors be expanded in membership having a representative of each Association Chapter.
 - B. Discussion of dues rebates.
 - C. Option of an individual to join the regional chapter but not the National (Bedard, MME).
11. Affiliate groups (Marsh, Gammisch)
 - A. Dues and forms
 - B. Business groups

Board of Directors Meeting: Proposed Agenda, 4-6 August 1980 pg. 2

- C. Non-profit groups
- D. Cost factors.

12. Grant Proposal (Spector)

A proposal involving matching funds allowing for maintenance of marine education leadership in the United States by actively operating and providing for the continuance of the N.M.E. network and the CCSSO network.

- 13. A. Support for the educational component in the proposed NOAA Organic Act (Hanahan).
- B. Comments of the NMEA President at the Coastal States Organization meeting in the Spring (Abrams).
- 14. Continuing support of Marine Education goals by the Office of the Sea Grant. (We are asking Bob Sheperd to speak on Wednesday, 6 August, if he can be available).
- 15. Minorities and women in Marine Education: Implementing actions for the Association to consider. (Hanahan)
- 16. Organizational management.
 - A. The Executive Director
 - B. Membership lists and mailings
 - C. Central office
 - D. How Chapters will relate to administrative routines
 - E. McManis Associates (Lanier)
- 17. Discussion of Dues Structure for the Association's needs and management.
- 18. A. Discussion of roles and functions of Officers and Board members.
- B. Reassessment of committee responsibilities and functions (Klemm).
- C. Time-line for action by committee chairs and the Board
- D. Role of Chapter officers and committees
- E. Meshing Chapter conferences with the National's activities
- 19. Recommendations for Committee Chairs, 1980-81

Wednesday, 6 August:

- 20. Announcement of election results (Schlenker).
- 21. Passing of gavel to President-elect.
 - A. Discussion of Budget for 1980-81 with its adoption (Gammisch).
 - B. Committee and Board Assignments

C. Discussion of site, time and program plans for the 1981 National Conference.

22. Additional Agenda items:

APPENDIX B

Association Operations Calendar

INDIVIDUALS	DUTIES	COMPLETION/MAILING DATE
President	1. President's Report	30th of each month
	2. Announcement of Chairs & Committees	30th of September of each year
	3. Announcement of Conference date, location & theme	30th of September of each year
	4. President's message for <u>Current</u>	September 1 December 1, March 1, June 1
	5. Agenda and dates of the annual Board of Directors Meeting	May 15 of each year
	6. Annual Report	July 15th of each year
Treasurer	1. Monthly report to the President	15th of each month
	2. Annual report to the Board of Directors	July 15 of each month
Secretary	1. Submit minutes of the annual Board of Directors Meeting	30th of September of each year
	2. Secretary's Corner for <u>Current</u>	September 1, December 1, March 1, June 1
Public Relations Chair	1. Make requests for exhibits	October 30th of each year
Board Members & Chairs	1. Provide materials for the President's Report	10th of each month
	2. Respond to minutes of the Annual Meeting	30th of October of each year

ELECTIONS

ITEM	DATE
1. Chair of Nominations Committee submits names of Committee members to the President	December 1st of each year
2. President announces Nominations Committee members	December 30th President's Report

- | | |
|---|---------------------------------------|
| 3. Memo from the President to the Chair of the Nominations Committee reminding the Chair that nominations forms should be sent to the membership | January 30th
President's
Report |
| 4. Memo from the Chair of the Chair of the Public Relations Committee to the Chair of the Nominations Committee regarding the printing of ballots | February 15th
of each year |
| 5. Chair of the Nominations Committee mails nominations forms to the Association membership | February 28th
of each year |
| 6. Members mail nominations to the Chair of the Nominations Committee | March 15th of
each year |
| 7. Chair of the Nominations Committee secures profiles of nominees and mails them to the Chair of the Public Relations Committee | April 15th of
each year |
| 8. Chair of the Nominations Committee mails ballots to the Association members | May 15th of
each year |
| 9. Members return ballots | June 15th of
each year |
| 10. Secretary counts ballots | July 15th of
each year |
| 11. Secretary reports the election results as to the President | July 20th of
each year |

APPENDIX C

Curriculum Committee Report and Directors and
Goals of the Curriculum Committee

August 5, 1980

FLS

CURRICULUM COMMITTEE REPORT1. Northeast Conference 1981

An exposition of ten curriculum projects and/or programs presented at a sea coast Conference Center in New England to draw attention of Chief School Officers, Superintendents, and Curriculum Specialists to the latest materials and programs available.

- Proposed Dates: July 28 - August 2, 1981
- This proposed conference would "show case" our programs and curriculum projects so that the general conference plan could be repeated in the remaining areas of the U.S.
- Proposal to NSF - I.D.S.E. Program due January 7
- Submitted by NMEA

2. Curriculum Committee

Frank L. Sullivan - Chairman

Alyn Duxbury

Barbara Klemm

Arie Korporaal

Violetta Lien

Robert Abrams - Ex-Officio

Les Picker

Thomas Speitel

James Schewitzer - Ex-Officio

John Butzow

Linda Wilson

3. Objectives and Goals of Curriculum Committee

Directions and Goals of Curriculum Committee

When a request was sent out to the Board of Directors and other office holders in our association for nominations for the curriculum committee last February, John McMahon replied that he would be glad to respond with appropriate names if he had an idea of what the committee was going to do.

In order to stir up interest in the action of the committee, I have written down some perceptions of our responsibilities and goals. This piece might generate interest in things we call curriculum and highlight the need for our association to become a more active force in our nation's marine affairs.

Probably our guiding axiom is that education can and should be the avenue for informing the public about the state of affairs of our marine environment (marine in the Goodwinian sense that includes aquatic), and what government law and/or policy is doing to protect, preserve or shepherd our natural resources.

If one accepts education, public or private, as a vehicle for informing the general public about major concerns of our country, then what we do as an association is terribly important. We stand as the major marine education association with this purpose, which cuts across a number of populations of educators from Sea Grant marine adviros, to high school teachers, to aquarium-based teachers, to sailing and scout instructors. Our diversity is our strength, and our ability to affect improvement in the many facets of marine education is so far untested.

Without getting too flowery, I think we have a great opportunity to accomplish some worthwhile projects, with a challenge to rally others to our cause.

It's very easy to discuss in general terms what we should be doing, but I think it would be helpful if I describe what the curriculum committee might accomplish. Some of these tasks are already in progress.

Goals

1. Develop a better awareness among educational decision-makers as to the variety of marine curricula presently available. In other words, the NMEA should undertake projects and/or promotional activities to show administrators and curriculum developers the high quality materials presently available.
2. After a survey of materials presently available the committee should describe gaps or deficiencies in our marine curriculum, and assist appropriate agencies and institutions to remedy the situation. In particular instances, the NMEA might be a major participant in national curriculum projects (not develop a national curricula - an important distinction).
3. The curriculum committee, as it has in the past under Robert Stegner's guidance, continue to compile a register or annotated listing of quality curricula available in the U.S. I would urge that we add international curricular sources as well since UNESCO has started to fund marine education conferences (UNESCO, 1979). As most of our members read only English, it would be expedient to include only curricula permitted in English for the present.
4. As many of our problems stem from lack of communication among interested agencies and institutions, the curricu-

lum committee should prepare a newsletter alerting others to the curricular activities, projects, and new directions in marine education. We must provide some leadership in this, as our association has a particular vantage point in marine affairs - nationwide.

5. The curriculum committee should investigate with other committees such as professional development the possibility of preparing special teacher education materials for those involved in pre-service and in-service education of teachers.

References

UNESCO, UNESCO Reports in Marine science, marine science syllabus for secondary schools, Report of an IOC workshop on the preparation of a marine science syllabus for secondary schools, United World College of the Atlantic, United Kingdom, 5-9 June 1978.

Nominees for Curriculum Committee:

1. Dr. John Butzow
2. Mr. Jack Crowley
3. Dr. Alyn C. Duxbury
4. Mrs. Barbara Klemm
5. Mr. Arie Korporaal
6. Dr. Les Picker
7. Ms. Violetta Lien
8. Ms. Linda Wilson

APPENDIX D

Income and Balance Statement 7 August 1979
Through 31 July 1980

National
Marine
Education
Association

Income and Balance Statement
August 7, 1979 - July 31, 1980

Beginning Balance \$ 3312.58

Income

1979 Conference Fees	11346.30
General Membership	2216.40
Chapter Dues	676.00
Advertising - CURRENT	111.50
Stegner Memorial (actual income, not including \$250 NMEA transfer)	428.05
	<u>\$ 14778.25</u>

Expenditures

1979 Conference Costs	6842.27
Conference refunds	233.80
Seaworld refunds	14.00
Dues refunds	18.60
Supplies	
Postage	
Telephone	136.98
Publications	
CURRENT	2616.43 (incomplete)
Affiliations	
Travel	33.48
Committees	
Exhibit Panel	230.00
Balance	<u>\$10125.56</u>

APPENDIX E

Council of Chief State School Officers Marine
Education Activities 1979-1980

July 24, 1980

TO: NMEA Board of Directors

FROM: John J. McMahon (signature)

SUBJECT: Council of Chief State School Officers (CCSSO) Marine Education Activities 1979-1980

Since August, 1979, the CCSSO has continued efforts to foster marine education. In the fall of 1979, a CCSSO study commission incorporation of specific marine elements in CCSSO policy statements on 1) instructional media and materials, and 2) environmental education. In November 1979 these elements were included in the policy statements (copies attached).

Additional CCSSO efforts were suggested by the chair of the marine education committee but have not yet been productive (see attached letter from Charles Clark). There was insufficient follow up on these efforts because Mr. Clark and I could not attend the November 1979 CCSSO meeting due to a garbage strike in Hawaii.

The CCSSO Marine Education Committee did meet in November, 1979. Their efforts were directed at implementing a functional network of state marine education coordinators (more than 40 have already been appointed) by encouraging joint efforts between the federal Office of Sea Grant (OSG) and federal Department of Education. Subsequently, the Marine Technology Society has become interested and is supportive of the same effort.

These efforts have not been successful to date, although no final decision has been made. The federal Office of Sea Grant has neither extended nor replaced the temporary Program Director for Education. The federal Department of Education has taken no substantive action on marine education - probably due to its transition to department status.

The CCSSO initiated contact with the Office of Sea Grant and remains supportive of an effort to implement a functional network of state marine education coordinators.

gj

20 September 1979

A. Craig Phillips
Superintendent of Public Instruction
State Department of Public Instruction
Raleigh, North Carolina 27611

Dear Craig:

At the May Commissioner's conference the Marine Education Committee of CCSSO directed me to request that the President and Board of Directors of the Council consider initiation of a series of activities that would encourage federal assistance in marine and aquatic education. Specifically the following items were discussed:

- A. The Committee suggested that a letter be sent from the Chiefs to Assistant Secretary Berry, requesting That her office support the efforts to develop a marine literate society. This support could manifest itself in the following ways:

1. The Assistant Secretary should call upon the resources and expertise in the Federal Interagency Committee on Education (FICE), the U.S. Office of Education (USOE), the National Institute of Education (NIE), and the Fund for Improvement of Postsecondary Education (FIPSE) to assist states in facilitating education about the world of water in schools.

This support might be reflected by:

- a. insuring through NIE that the educational laboratories and centers provide resources to support the objectives of marine education
- b. encouraging USOE to create a fully staffed office for Marine Education with an operating budget including a provision for grants to SEAs and LEAs, and establishing and maintaining communication with states and other federal agencies with overlapping interests in marine education.
2. The Assistant Secretary of Education should be encouraged to coordinate with the National Oceanic and Atmospheric Administration, National Science Foundation and other federal agencies with common interests in marine education to insure that local school districts receive the benefits of, and become part of, a coordinated endeavor to maximize the impact of the limited resources available.

- B. The Council should examine various positions and approaches developed by others and lend their support through endorsement and recommendation to those that are consistent with policies of the Council relating to Marine Education.
- C. The Council recommends that an information network be established to support the work of Marine Education Coordinators.

In summary, the Marine Education Committee feels that appropriate action from the Council, its individual members, the federal government and other agencies is required to motivate the elevation of the marine education emphasis to a level commensurate with its importance. I would appreciate your suggestions on alternative methods of proceeding on this matter and any assistance you can provide in exerting Council influence in meeting this need.

Sincerely,

(signature)

Charles Clark

RECOMMENDED CHANGE TO POLICY STATEMENT

II. Leadership in Education Instruction

7. Environmental Education

There is a need for greater citizen understanding to maintain and conserve our valuable natural resources, including water, air, land, energy, minerals, food and fiber, and their relationship to pressing environmental problems and the need for ecological balance.

The Council urges its members to provide leadership and assistance to local school systems in encouraging environmental education which will aid in developing an appropriate balance between conservation and utilization of all our natural resources. (Both terrestrial and aquatic.)

D. Instructional Media and Materials

The selection of school instructional materials is a responsibility shared by teachers, school administration, and boards of education working within policies formulated by local and state school authorities.

The Council supports the constructive involvement of citizens in making decisions involved in the selection of curriculum materials using legally established policy making processes.

The Council urges particular attention to certain pressing issues related to instructional materials:

1. Elimination of Sterotypes in Teaching Methods and Materials

State and local education agencies are urged to develop process for the analysis, review, evaluation, and revision of textbooks and all curriculum and instructional materials and methods to eliminate sex, race, and role stereotyping, and promote freedom for individual development.

2. Community Resources

The states are encouraged to expand education programs to include use of museums, public libraries, and other public resources and link them with public school programs. Field based educational opportunities should become an integral part of the educational programs offered to all students.

3. Resource Conservation

State education agencies are urged to develop instructional materials for use in local schools to (help emphasize the cause and possible remedies for the energy shortage):

- a. develop an awareness of the declining to help availability of natural resources;
- b. develop an appreciation of water resources, both marine and freshwater.
- c. emphasize the cause and possible remedies for the energy shortage.

E. Instructional Technology

The past decade has seen a significant increase in the development and use of instructional technology. State and local education systems should have access to, and support for, the development and adoption of such technology.

The Council supports the wise and well-planned use of available technology to extend the effectiveness and efficiency of

instruction, and advocates increased federal financing for the development of significant educational and instructional programs, i.e., the Corporation for Public Broadcasting, computer-assisted or monitored instruction, and instructional television, including the use of satellites.

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MAINE EDUCATION
 A Committee Report
 Report to the Council of
 Chief State School Officers
 November 13, 1979

The Marine Education Committee discussed current status and future plans for the implementation of a network of state marine education coordinators. The network is designed to provide assistance in infusing a knowledge and awareness of the importance of the world of water in all areas of the curriculum. Forty States have named coordinators, and we are looking to the Department of Education and the National Oceanic and Atmospheric Administration/Sea Grant to provide technical and financial assistance in convening necessary training workshops for these coordinators.

Representatives from these two federal agencies presented status reports of the organizational progress in providing assistance to the state education agencies and were encouraged to develop plans to ensure that the impetus created by the establishment of this network can be maintained by action in the near future. These training workshops should be designed to meet the following objectives:

- Explore the role of the marine education coordinator within their state;
- Explore the role of the marine education coordinator as part of the National Marine Education Network;
- Provide an update of the state of the art in marine education;
- Develop procedures to link into existing resource system; and
- Indepth content area training to provide information on marine affairs to enable the coordinators to behave as marine subject area resource specialists.

The federal representatives agreed that the objectives were appropriate and that they would jointly initiate a detailed proposal to conduct the initial workshop in the series. The two agencies agreed to keep the Committee Chair informed as to the progress that is being made so alternatives can be considered at the earliest possible time.

Finance Studies - finance studies and initiate action to ensure appropriate state education agency (SEA) interaction and involvement.

Policy Statement - discussed the role of CCSSO policy and agreed that policy should give staff direction for implementation as well as serve as statements of principle. The Board agreed that the current policy document reflects the needs of the chiefs however direction for policies needs to be addressed.

NCATE - directed the Executive Director to take whatever measures necessary, short of making a direct contribution to the National

Council for Accreditation of Teacher Education (NCATE), to see to it that CCSSO retains constituent membership. The Board also instructed the Executive Director to send a letter to all chief state school officers regarding individual state contribution to NCATE and providing background information about CCSSO's membership.

New Department of Education Leadership - agreed that the Council would not endorse individuals for department positions but would react, upon request, to the White House's and transition team's candidates.

Youth Voter Registration - commended the National Association of Secondary School Principals (NASSP) on its action and offered the Council's support to Jessie Jackson's project of getting all high school seniors registered to vote during the coming election year. This Board action will be forwarded to the chairperson of the Committee on Citizenship.

Marine Education Policy - endorsed the recommendations of Marine Education Chairperson, Charles Clark, Hawaii superintendent, to send a letter from the chiefs to the Deputy Commissioner for Elementary and Secondary Education requesting that the office support the efforts to develop a marine literate society.

Clark's recommendation also calls for the Council to examine various positions and approaches developed by others and lend its support through endorsement and recommendation to those that are consistent with policies of the Council relating to Marine Education.

The Board also recommends that an information network be established to support the work of Marine education coordinators.

The Board does not recommend additional categorical funding, but rather use of existing funding categories for marine education.

Distinguished Service Award - witnessed the unveiling of the Council's new Distinguished Service Award which will be presented to New York Times Foundation President Fred Hechinger at the Annual Banquet Tues., Nov. 13, 7:30-10:30 p.m.

The award is a paper sculpture mounted on a pure silk linen mat enclosed in plexiglass measuring 17" x 14" x 2". The sculpture depicts the leadership and expansion and exploration of educational opportunities which has caused the Council to call attention to the contributions of the recipient to education.

RACERASE BOND

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APPENDIX F

Honorary Membership Committee Report

July 24, 1980

TO: NMEA Board of Directors
FROM: John H. McMahon
SUBJECT: Honorary Membership

As chair of the Honorary Membership Committee, I propose Mr. Will Hon for Honorary Membership in the Association.

Mr. Hon has been an outstanding practitioner of marine education for many years. He has developed many outstanding materials during his career. He is respected by Marine educators throughout the country.

Honorary Membership in NMEA was designed as "the highest recognition the Association can confer". It recognizes individuals who "have demonstrated a distinguished career in teaching, research, or service in marine education". As a nationally recognized pioneer in marine education for many years, Mr. Will Hon has earned this recognition.

gj

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APPENDIX G
Annual Election Information
and Ballot

RACETRACE BOND

National Marine Education Association

June 15, 1980

Dear Association Member:

Your ballot for the 1980 National Marine Education Association elections is enclosed with this letter. You should cast votes for President Elect, Treasurer, Secretary and five nominees to the Board of Directors. Please mark your ballot in accordance with the directions provided on the ballot. Once completed, your ballot should be returned to:

Richard M. Schlenker, Secretary
National Marine Education Association
Maine Maritime Academy
Castine, Maine 04421

All ballots received at Castine, Maine prior to 4:00 PM, July 15, 1980 will be counted.

Results of the election are to be announced at the August 1980 Association annual meeting in Salem, Massachusetts and in the Fall 1980 issue of Current.

Sincerely,

Richard M. Schlenker, Secretary

Encl.

National Marine Education Association

June 15, 1980

Dear Association Member:

Your ballot for the 1980 National Marine Education Association elections is enclosed with this letter. You should cast votes for President Elect, Treasurer, Secretary and five nominees to the Board of Directors. Please mark your ballot in accordance with the directions provided on the ballot. Once completed, your ballot should be returned to:

Richard M. Schlenker, Secretary
National Marine Education Association
Maine Maritime Academy
Castine, Maine 04421

All ballots received at Castine must be postmarked 1 August or a prior postmark in order to be counted.

Results of the election are to be announced at the August 1980 Association Annual Meeting in Salem, Massachusetts and in the Fall 1980 issue of Current.

Sincerely,

Richard M. Schlenker, Secretary

Encl.

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CANDIDATES

James Lanier

Jim is currently the Director of Educational Programs for the New Jersey Marine Sciences Consortium with headquarters in Princeton, New Jersey, and field stations and programs at Sandy Hook and Sea-ville, N.J.

He formerly directed the marine education program at Virginia Institute of Marine Sciences and was on the faculty of the University of William and Mary and the University of Virginia.

In New Jersey, Jim is concentrating on an expansion of pre-college programs and technical services in addition to the long standing undergraduate courses offered by the Consortium.

Jim has been a member of the NMEA Board of Directors for two years and has chaired the Committee on Chapters. He has been a member of NMEA's Constitution Committee and Curriculum Committee. He was also the first President of the Mid-Atlantic Marine Education Association which become the first Chapter of the National Association.

John Butzow

A Professor of Education at the University of Maine, John received his Ed. D. in Science Education at the University of Rochester.

John's dedication to the teaching profession was rewarded when he received the S.C.F.T. Teacher Award for Outstanding Faculty Member in UMO College of Education, Spring 1977.

Along with his teaching responsibilities he has served as a consultant for the Outdoor Biological Instructional Strategies Program in Northern New England since 1975, and Project Director of the Northern New England Marine Education Project for Sea Grant.

John is the author of numerous journal articles and technical reports. He has participated in the production of 17 units of instructional materials, grades K-S, of which he was senior author of 4 units.

Secretary

Roseanne Fortner

Roseanne is a faculty member of Ohio State University developing environmental communications programs and is editor of Middle Sea from Ohio Sea Grant. She is currently serving on NMEA's Board of Directors.

Richard Schlenker (incumbent)

Richard is currently an Associate Professor Chemistry and Oceanography at Maine Maritime Academy with many publications to his credit.

Julia Sheldon

Formerly teacher and coordinator of an earth science program in a senior high school, Julia is presently Secretary of the New York

State Marine Education Association and former editor of its newsletter, Ripples.

Treasurer

Sue Gammisch (Incumbent)

Sue serves as Coordinator for Sea Grant Marine Education Materials Systems () and has published a Guide on its use.

VICKI OSIS

Marine Extension Specialist, Marine Science Center of the University of Oregon; NMEA Board of Directors, 1977-79; Chair, NMEA Secondary Education Committee.

Board of Directors

Ron Bilodeau - representing the Connecticut Marine Education Assn. Aquarium Director, Children's Museum of Hartford; Adjunct Professor, University of Hartford, Active in the Northeast Marine Education Council and member of the Aquarium-Museum Committee and Professional Development Committee of NMEA.

James Centorino

Coordinator, Marine Studies Program of Salem State College; Associate Director, NSF Marine Science Institute at Salem; President, Marine Education Association, North Shore; Associate Professor of Geography.

Charles "Chuck" Fray

Representing New York State Marine Education Association Executive Secretary of NYSMEA; Director of Marine Sciences Program and Associate Professor at Dowling College; Associate Research Oceanographer at Marine Sciences Center of the State University of New York.

Barbara Klemm (Incumbent)

Associate Director, Marine Science Studies Project at University of Hawaii; Chair, NMEA Committee on Professional Development & Continuing Education; Director, Sea Grant Institute for Marine Educators.

Vi Lien

Faculty member of Texas A & M in the Department of Educational Curriculum and Instruction; on NMEA Curriculum Committee and assisting in the setting up of NMEA's 1981 Conference.

Sheila Magula - representing Mid-Atlantic Marine Education Assn. Treasurer of NAMES; Curriculum Assistant for Virginia Beach City Schools; Coordinator of the Virginia Beach Marine Biology Summer Enrichment Program.

David Marsh

Chair of the Public Relations Committee of NMEA; Ranger for the Metropolitan Bank District in the Toledo, Ohio area; NMEA Conference Committee.

Della M. McCaughan

Teacher of marine science and Science Chair of Biloxi High School,

Mississippi; Principal Investigator, species identification in Mississippi Sound; Coordinator; Sea Grant guide to Miss. Marine Resources, 1974.

John McMahon - representing the Northwest Association of Marine Ed. Past President, NMEA; Presently with the Marine Science Center Extension Service, Oregon State University; former Director of the Bluewater Marine Laboratory of the University of Hawaii.

Les Picker (Incumbent)
Editor of NMEA's Journal, CURRENT, Chair, Publications Committee; Assistant Professor of Education and Marine Studies, University of Delaware; teacher of marine education at high school level and at University of Maine

Nancy Richardson (Incumbent)
Marine Education Program Specialist for the Girl Scouts of America; Chair, Sail Training ships survey; NMEA liaison to Sail Training Association and Safe Boating Council; Coast Guard Reserve.

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APPENDIX H

Public Relations Committee Forms

RACERASE BOND

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SOUTHWORTH CO. U.S.A.

National
Marine
Education
Association

News Release

Gloucester Point, Virginia 23062

National
Marine
Education
Association
Gloucester Point, Virginia 23062

Formal Application
For Affiliate Membership

We, the officers of _____, an
_____ name of organization
active non-profit local _____, state _____, or regional _____ scientific
_____ or education _____ organization wish to apply for affiliate member-
ship with the National Marine Education Association.

According to Article II section I of the NMEA bylaws we have
attached a membership list, and a summary of our program or an-
nual report for the year immediately preceding this application.
We understand that upon receipt this application and supporting
documents will be submitted to the Board of Directors for review
and upon a favorable vote of three-fourths (3/4) of the Board of
Directors.

_____ name of organization _____ will become an
affiliate member of the NMEA. We also understand that as an affil-
iate member our status will be periodically reviewed by the Board
of Directors.

The information given is true. We understand that as an affili-
ate member our status will be periodically reviewed by the Board
of Directors.

The information given is true. We understand any willful mis-
representation is cause for denial or revocation of affiliate mem-
bership. Having read and complied with the requests of this form
we respectfully apply for affiliate membership.

President _____

Treasurer _____

Vice President _____

Secretary _____

of _____

_____ name of organization

on _____

date

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Appendix I

Current Report and Subscription Form

RACERASE BOND

SOUTHWORTH CO. U.S.A.

CURRENT

The Journal of Marine Education
National Marine Education Association
Les Picker, Editor
Fleda Jackson, Assistant Editor
College of Education
University of Delaware
Newark, DE 19711

July 11, 1980

TO: Board of Directors, NMEA
Editorial Board, CURRENT
FROM: Les Picker, Editor

RE: 1979-80 Annual Report, CURRENT: The Journal of Marine Education

I am sending this report in advance of our meeting in Salem, Massachusetts. However, I have also requested of the President that discussion of CURRENT be placed on the agenda as a high priority item when the Board of Directors meets.

To facilitate your reading this report, I have divided it into appropriate sections. I welcome comment on this report. If there are specific questions which you feel I should address at the Board meeting, please call or write me in advance so that I may adequately research the issue before the actual meeting time.

Copies of forms, form letters, and related materials will be passed out at the meeting of the Board.

Thank you for your attention to this report.

LP:jp

STAFFING

Past Year: The most significant aspect of the staffing of CURRENT was the hiring of Ms. Fleda Jackson as Assistant Editor. As mentioned in CURRENT, Vol. 1, No. 2, Fleda has a great deal of editing experience which has been reflected in the journal and which will be obvious to the Board as this report progresses. Fleda was hired with a \$100/month appropriation voted by the Board at last year's meeting. (See "Funding Requirements" below.)

Fleda is responsible for a multitude of operations in the publication of each issue of CURRENT. She secures manuscripts from potential authors, edits them, sends them out for review, brings them to the typesetter, helps with a pasteup and arrangement of pages, and approves the final copy. In addition to these chores, Fleda also has been instrumental in decision-making regarding editorial policy, financial management, and related matters.

In addition to Fleda, we have hired a federal Work-Study student to augment our staffing needs. This is funded through Project COAST funds, as explained below. Additionally, the College of Marine Studies, University of Delaware, and the Delaware Sea Grant College Program have provided us with the art and graphics staffing support of three highly trained people.

Anticipated: We anticipate having Fleda stay with us, hopefully for a long time to come. In addition, we will have the services of one 10 hours/week Work-Study student (up from 5 hours/week) and the involvement of several of my graduate students, most notably Kathy Manger.

Fleda is presently negotiating with the Department of Journalism for the use of a full-time (20 hours/week) journalism intern which would enable us to undertake special projects, catch up on administrative detail, etc.

SECUREMENT OF MANUSCRIPTS

Past Year: The first issue was a horror story with barely enough adequate copy to cover the issue. By the third issue we had passed the turning point with more copy than we possibly could have used. We sent out letters to known marine educators, especially as our "Special Issue" focuses emerged, and to selected others as they became known to us.

Anticipated: We plan to solicit names of content area experts, not only in marine education but in marine science, maritime history, marine art, folklore, and others. We then plan to mail a form letter to these people, soliciting manuscripts and related submissions. (Editors Note: The process was started on July 1.)

MANUSCRIPT REVIEW

Past Year: Once manuscripts were received, they were either rejected outright (due to a variety of very obvious factors) or if judged good or redeemable, sent out for review.

Anticipated: Establishment of a Panel of Reviewers has already been started. This will eliminate a good deal of guesswork in terms of who should be sent what type of manuscript. It will also relieve the Editorial Advisory Board of this responsibility. Finally, with a form generated by Fleda and increased submissions (quality and quantity), manuscript review should become second nature.

ADVERTISING

Past Year: Due to pressing problems with format, manuscript review, and related editorial matters, adequate attention was not given to procurement of advertising revenue. Much of this reflected a conscious decision on our part as we felt CURRENT should stabilize before recruiting advertisers. Approximately \$100 was received.

Anticipated: A major and systematic approach to procurement of advertisers in CURRENT is planned through the following:

1. use of a form letter
2. use of follow-up techniques
3. utilization of Editorial Advisory Board members as leads to advertisers
4. generation of invoicing, billing, and financial management system in conjunction with NMEA Treasurer. (This has already been accomplished.)

We hope to generate at least 25 percent of our printing costs through advertising revenue this year. Within three years it is conceivable for all printing costs to be absorbed through this route.

EDITORIAL POLICY

Past Year: Major decisions were made with the input of the Editorial Board and Selected others knowledgeable of academic publications.

Anticipated: With a larger and more diverse Editorial Advisory Board, decision-making should better meet the needs of the Journal and NMEA members. In addition, our staff will continue to communicate with other journals in the field to evolve a comfortable format for our organization.

As far as manuscript review is concerned, we have organized our review process into significant sections based upon our experience to date with manuscripts. Based upon this, we have mailed letters to potential reviewers of manuscripts in the many diverse areas which comprise marine education. So far the response has been excellent, and the full Panel of Reviewers should be completed with the fall issue.

The Editorial Advisory Board will be expanded to ten members, each serving a two-year term with half the Board's term expiring each year. This will allow us continuity in working with Board members. The Board will no longer help with manuscript review except under special circumstances and will act as "goodwill ambassadors" for a

variety of functions.

EDITIONS

Past Year: This year we saw one general issue and three special issues. The three special issues focussed on "Marine Literature," "Inner City Marine Education," and "Year of the Coast."

Anticipated: All four issues for next year are planned with specific content in various stages of readiness. The first issue will focus on "Fisheries Education" and will be subsidized in printing through the Department of Interior, Division of Fish Hatcheries. We thank Nancy Kaufman for her help in this issue.

The second issue will focus on "Winter Marine Education." It promises to be an excellent one with articles from content experts, curriculum specialists in this area, and others.

The third issue will be first attempt at a guest editor issue with Barbara Klemm editing a "Marine Education for the Eighties" special focus. We have already worked out guidelines and details with Barbara on this.

Finally, the fourth issue will be a general issue with many excellent backlogged articles filling in.

We welcome suggestions for other special features and would specifically appreciate your help in spreading the word that we are always in the market for good manuscripts. Refer special content people to us, and we will write them a letter requesting materials from thsm.

FINANCES

Past Year: Many of the Board may not realize that The Delaware Sea Grant College Program, under the firection of Dr. Carolyn Thoroughgood, subsidized us to the tune of \$3,850 this year in the form of an outright grant-in-aid. Added to this was the special services of the graphics staff which is to be highly commended.

As the year progressed, we realized that we need to have at least one issue printed in more than the usual run of 1,500 so that we could use it to send to advertisers, increase circulation to libraries, etc. Based upon this, the Office of Coastal Zone Management in Washington agreed to a purchase arrangement whereby we were able to print 3,000 copies of the summer issue of CURRENT. This also allowed us to have extra copies for the conference.

The remainder of the cost for printing CURRENT was absorbed by the organization as follows:

Printing of Vol. 1, Nos. 1 & 2	\$3,850*
Printing of Vol. 1, No. 3	1,300
Printing of Vol. 1, No. 4	2,130

Salary, Ms. Fleda Jackson @\$100/month	\$1,000
Conference, Ms. Fleda Jackson	300
Printing of Stationary and Fliers	<u>75</u>
Subtotal	\$8,655
Subtract Grant-in-Aid, Sea Grant	<u>-3,850</u>
Subtotal	\$4,805
Subtract OCZM Purchase Arrangement	<u>-1,500</u>
Subtotal	\$3,305
Subtract Travel Allowance, College of Education, University of Delaware	<u>- 300</u>
TOTAL Cost to NMEA	\$3,005**

* includes start-up costs.

** does not include telephone, travel, and supplies contributed
by College of Education.

Anticipated Budget, 1980-81:

Printing Costs of CURRENT 3 issues at 1,500 copies 1 issue at 3,000 copies	\$6,000
Miscellaneous Printing	300
Salary, Ms. Fleda Jackson @ \$200/month	\$2,400
Travel, Editorial Staff	<u>150</u>
Subtotal	\$8,850
Subtract \$1,500 Grant-in-Aid, Delaware Sea Grant	<u>1,500</u>
Subtotal	\$7,350
Subtract \$1,500 Purchase Arrangement Department of Interior	<u>-1,500</u>
TOTAL	\$5,850

Current

the JOURNAL of MARINE EDUCATION

Current, the official journal of the National Marine Education Association (NMEA), reaches elementary, secondary, and university teachers, department heads, directors of public aquaria, zoo directors, administrators, and employees of marine centers. As a new journal, Current already has a circulation of over 2000. That number is growing rapidly. As the coordinating voice of NMEA, the journal fills what was an enormous gap in the efforts of many organizations to disseminate educational marine materials.

NO OTHER SEA LIFE JOURNAL QUITE DOES CURRENT'S JOB

RECENT ARTICLES

The Inner City and Marine Education, Summer 1980 (Vol. 1, No. 4)

- "Downtown Aquaculture" by Dorothy Bjur, explains the Joint Educational Project at the University of Southern California
- "The New England Aquarium" by Warren Little and Maxine Rosenburg, discusses the effectiveness of the "magnet" schools' use of the New England Aquarium to help relieve racial tension
- "Marine Mobile" by Linda O'Dierno, describes a way New York City educators have found to bring marine study to the classroom
- "Summer Opportunities '80," a guide to classes, projects, and conferences held this summer all over the country

REGULAR FEATURES

- Marine Literature (reviews)
- Association News
- For the Classroom (marine-related lesson plans)
- Washington Report
- Stateroom (state marine activities)
- Hal Goodwin on Marine Education and the Humanities (The former Assistant Director of NASA and Associate Director of National Sea Grant Program talks about folklore and stories of the sea.)

FORTHCOMING ARTICLES

- "Marine Fisheries," featuring experts from the Division of Fish Hatcheries, Department of the Interior
- "Marine Careers," by Dr. Harold Goodwin
- "Sea Ice"
- "Cold Water Rescue"
- "The Physiology of Cold Water Drowning"
- "Hypothermia"
- Many curriculum materials for all ages; stories; poetry—all marine related

SUBSCRIBE TODAY!

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____ City

____ State

____ Zip

____ Enclosed is \$8, one year subscription (4 issues)

____ Enclosed is \$15, two year subscription (8 issues)

____ Bill me later.

MAIL TO: CURRENT, College of Education, University of Delaware,
Newark, DE 19711

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LAWRENCE, KANSAS

66044

(913) 843-1234 60

April 22, 1980

Dr. Arie Korporaal
National Marine Education Association
Ocean Science Programs
9300 East Imperial Highway
Downey, California 90242

APR 24 1980

Dear Dr. Korporaal:

It was a pleasure to talk to you on April 17 concerning the membership services which we offer to societies.

I enclose with this letter a list of the basic society services along with their costs per year per member and per subscriber.

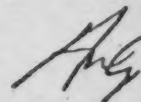
As I mentioned to you, an individual is a member and an institution is a subscriber. The difference in the rates is based on the greater amount of work necessary in dealing with institutions than with individuals.

I also send with this report a sheet showing the type of annual report we normally prepare for each society. The categories may vary from society to society depending on the expenditures and the sources of revenue.

Our primary business is the printing and mailing of scientific journals. We print a number of journals with which you and your organization may be familiar. These include Limnology and Oceanography, The Bulletin of Marine Science, the Transactions of the American Fisheries Society, Copeia, Ecology, Evolution, the Journal of Phycology, and many more. We would be very pleased to help you with your business operation if we can, to maintain your records in an efficient fashion. We would be equally pleased to have a chance to produce your fine journal Current.

After you have had a chance to review these figures, please let me know if there are any questions.

Cordially,



Arly Allen

AA/sh

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4. Keep records of all payments received, make bank deposits and set up books for Society audit.
5. Make changes of address and update mailing lists prior to each mailing of the journal.
6. Handle all claims for non-receipt of issues from members or subscribers.
7. Handle correspondence, orders, and billings for back issues of the journal.
8. Prepare annual billing for members and subscribers.
9. Send reminder notices as necessary -- normally not more than two are required.
10. Store back issues of journals, monographs, or special publications.
11. All office space, equipment and supervision required by business operation.

The cost of these services would be \$2.00 per year per member and \$3.00 per year per subscriber. The cost of any printed supplies, postage or materials would be billed separately. Locating, wrapping, and shipping of back orders will be billed on a separate basis. Special accounting services, such as yearly audits of records or the filing of IRS reports, are not included in the above services and would be billed as extra items.

APPENDIX J

Membership Category Information

Membership⁶²

Mail to: Chairperson, ITVA, 26 South Street, New Providence, N.J. 07974

I wish to apply for the following class of membership and its privileges to acceptance by the Membership Committee (Charter & By Laws furnished upon request):

Name _____		Title _____	
Co/Org _____		Dept _____	
Street _____			
City _____	State _____	ZIP _____	
Telephone (Area Code) Business _____		Home _____	
Standard Industrial Code: _____			

☐ Fee Enclosed (Amount \$ _____)

☐ Bill Company (PO# _____)

Do you plan to be active in a Chapter?
Yes _____ No _____

Which Chapter? _____

If none close by, largest city near you _____

I Am A

User ☐

- ☐ Student Member (\$20/yr) Full-time student not employed in media field more than 15 hrs/wk. Code (1)
Note: Students must provide proof of student status.
- ☐ Individual User Member (\$45/yr) Any person not engaged in commercial sale of media goods and services. Code (2)
- ☐ User Organizational Members (\$120/yr) Three assigned persons from a user organization. Additional assignees at \$35 each/yr. Code (6)

Supplier ☐

- ☐ Individual Supplier Member (\$45/yr) Any person engaged in commercial sale of media goods and services joining for non-commercial purposes. Code (4)
- ☐ Service Company (\$250/yr) Any organization or person selling media goods and services joining for commercial purposes on a regional basis. Code (3)
- ☐ Corporate Sustaining (\$500/yr) Offers opportunity to make substantial contribution to ITVA goals and to work with full ITVA resources for commercial and professional purposes. Code (5)

Note: Membership becomes effective the first of the month following receipt of fee and acceptance by Membership Committee.

The information given above is true. I understand any willful misrepresentation is cause for denial or revocation of membership.

Date _____

Signature _____

Revised and Effective 11/1/78. Subject to change without notice.



International Television Association

renewal form

MEMBERSHIP CLASSES

Student Member - Any individual enrolled as a full-time undergraduate student in a recognized institution or trade school. Student members shall receive the Association Newsletter, may attend all meetings, serve on committees and vote, but shall not be eligible to hold office in other than a duly recognized Student Chapter of this Association.

Individual User Member - Any person with an interest in the effective utilization of industrial television as a user who is not engaged in commercial sale of media goods and/or services. Said member shall receive all publications of the Association, be eligible to vote, hold office, sit on committees and participate in all activities of the Association.

Organizational Member - Any Corporation, Institution, Company, or Government Agency interested in the use of television for internal purposes, subject to the following conditions:

Said Member may assign three or more employees from the same organization, including divisions, branches or subdivisions, but excluding subsidiary or affiliated companies or organizations.

The Organizational Member may change membership assignments at will except for one individual who shall be designated principle representative.

The total number of Assigned Members may not be reduced except at time of annual membership renewal.

Each Assigned Member shall enjoy the same privileges and obligations as an Individual Member, except for payment of dues which is governed by the Board of Directors.

Individual Supplier Member - Any person engaged in commercial sale of media goods and/or services joining for noncommercial purposes. Such member shall have the same rights and privileges as the Individual User Member provided he maintains a noncommercial relationship with his fellow members, except he may not hold Regional or International elective office.

Service Company Member - Any Company, Corporation or Organization whose business includes the sale, rental, or distribution of services, equipment, or programming to the industrial television market is subject to the following conditions:

Each such Member may have two (2) Assigned Representatives to the Association who may attend conferences and meetings and participate in committees and activities of the Association, including voting holding chapter office, and serving on Regional and International committees. Neither may hold Regional or International elective office.

One of these two shall be designated Principal Representative and shall be entitled to attend the Association's Annual International Conference without further payment, and shall be provided his region's mailing list at the time of enrollment or renewal, plus certain research services of the Association subject to the approval of the Board of Directors.

Corporate Sustaining Member - Any Company, Corporation or Agency wishing to make a substantial contribution to the goals of the Association is subject to the following conditions:

Such membership shall be construed to be an international membership for those firms whose activities cross regional boundaries.

Such Members may have four Assigned Representatives, one of whom shall also be designated Principal Representative. Each Representative is eligible to vote, hold chapter office, and serve on Regional and International committees but may not hold Regional or International elective office.

Two such Assigned Representatives shall be entitled to attend the Association's Annual International Conference without further payment.

The Principal Representative shall be provided with the International mailing list at the time of enrollment or renewal, and shall have access to the research services of the Association in addition to other benefits which may be approved by the Board of Directors.

APPENDIX K

Marine Science Education Programs



DEPARTMENT OF THE NAVY
OFFICE OF NAVAL RESEARCH
ARLINGTON, VIRGINIA 22217

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IN REPLY REFER TO

733C:EMC
July 1980

Dear Marine Science Educator:

The Navy is vitally interested in Marine Science. A worldwide U.S. Navy mission demands capabilities for quick response to developing threats at locations around the globe. Modern naval weapons systems are capable of responding quickly, and there is a price exacted for that capability. Beyond the price of dollars and time, there is a requirement for knowledge of the ocean environment in which our Navy operates that ultimately determines how effective our operations can be. The ocean environment of the modern Navy reaches from the upper atmosphere, down through the surface, all the way to the seafloor. It is the mission of the naval oceanographic program to learn how the ocean environment influences naval operations and what can be done to either overcome those influences or employ them to Navy advantage.

Today's naval weapons systems are highly sensitive to the ocean environment. The underwater launched missile reaches its target if stresses of the environment through which it flies have been accurately factored into its flight. Naval aircraft missions depend on accuracy of weather reports and predictions between carrier deck and the target. Undersea operations require precise information about underwater acoustics for sensible perception of activities throughout the ocean volume in which they are conducted. The surface fleet must be advised about environmental conditions along a route of transit that will enhance or jeopardize goals of mission.

The traditions of Navy seamanship have evolved to encompass the employment of all scientific disciplines to help solve naval problems, including those associated with oceanography. And as a result a new meaning has been given to the development of ocean knowledge and technology by Navy leadership. The Secretary of the Navy, through the Office of Naval Research, has provided an avenue to foster student involvement in Marine Science through the NAVY SCIENCE AWARDS PROGRAM. Enclosure (1) gives details of that Program; and enclosure (2) gives a report of the just-completed 1980 Program. You can help your students and the Navy by telling them about the Navy Science Awards Program and encouraging them to participate at their local science and engineering fairs.

If you have questions about the Navy Science Awards Program, or if I may be of assistance, please do not hesitate to write to me or call me on (202) 696-5031. The Office of Naval Research stands ready to help you help our future leaders in science.

Sincerely,

Eleanor M. Cook

ELEANOR M. COOK
Project Officer
Navy Science Awards Program

Enclosures

DEPARTMENT OF THE NAVY
Office of Naval Research
Arlington, Virginia 22217

January 1980

Background on Navy Science Awards Program

Navy Science Awards...
An Invitation To The World of Research

Most high school science students recognize that the challenges facing them are limited only by their imaginations. Science is all around them-on the earth, beneath the earth, on the seas, beneath the seas, and in the vast reaches of outer space. In each of these areas the United States Navy plays a role in mankind's quest for scientific understanding and development.

While the Navy depends on science to find both immediate and long-range solutions to problems faced by the Fleet, it also helps science to find solutions to global problems faced by us all. Moreover, it provides springboards for many scientists in search of these solutions.

THE SCIENCE AWARDS PROGRAM

Another way the Navy becomes involved in science is through a nationwide youth program known as the Navy Science Awards Program. Managed by the Office of Naval Research, this program is a means to stimulate and reward scientific achievement among high school students. The program encourages young men and women to develop their interests in science and pursue scientific and technical careers.

The Navy participates each year in regional and state science fairs which exhibit various research projects performed and submitted by high school students. At these fairs, the Navy provides prizes and certificates of achievement for students whose projects are considered to demonstrate excellence in any field of endeavor-not necessarily military or nautical.

THE AWARDS

The Navy science awards consist of a first-place prize with a Superior Achievement Certificate for the winner and a second place Meritorious Achievement Certificate for the runner-up. Whenever possible, Navy representatives judge the exhibits and select the winners. If Navy judges are not available, the science fairs provide their own.

High school sophomores, juniors and seniors who display their projects at regional and state fairs are automatically considered for Navy science awards unless they have won one at a previous fair. All individuals are judged without regard to race, creed, sex, or national origin.

THE HIGHER COMPETITION

Students who win first place in their regional or state fairs and those who receive the Navy's first-place prize with Superior Achievement Certificate are eligible to participate in the Navy's Science Cruiser and International Visit competitions.

These higher levels of competition offer students an opportunity to submit abstracts of their winning projects and have them judged for special recognition by a panel of Naval Research Reserve officers who are qualified in a variety of scientific fields. From among the competitors, two students are selected to participate in scientific activities overseas. One attends the London International Youth Science Fair fortnight and the other visits the Japanese Student Science Fair activities in Tokyo. The Navy pays for all transportation, lodging, and meals for these trips and the activities they include.

"THE CRUISERS"

Sixteen winners-called "Navy Science Cruisers" - are selected for a week long trip to Hawaii where they visit various scientific facilities, a ship of the U.S. Pacific Fleet and, of course, Waikiki Beach. This trip is also at Navy expense.

Here are some important conditions of eligibility for each International Visit and Science Cruiser Competitor:

The science project must be solely the student's own work: no team efforts can be accepted.

The student must be a sophomore, junior, or senior in high school and must have his or her parents' or guardians' written permission to participate in the cruise and other activities that are included in the Navy awards (appropriate forms will be provided to the winners).

The abstract to be judged must describe the same project that won the prize at the science fair.

Students must not have won a Navy Science Cruiser award or an International Visit award before; however, former winners of Science Cruiser awards may be eligible to compete for an International Visit award.

LOOKING TO THE FUTURE

The Navy recognizes that our nation's achievements in science have been made possible by people who have decided to devote their lives to scientific research. It recognizes also, that it is the students' efforts not only now, but in the future that will determine the position in science of the Navy and the United States twenty-five to fifty years into the future.

The Navy feels that students who demonstrate a willingness to be a part of our world of science by participating in school and

regional and state science fairs deserve special recognition. These students also deserve the opportunity to further demonstrate that they possess the potential to contribute meaningfully to the advancement of science for the benefit of all mankind.

This is why the Navy has a Navy Science Awards Program.

Navy Science Awards Program
Office of Naval Research (Code 733)
800 North Quincy Street
Arlington, Virginia 22217
(202) 696-5031

1980 NAVY SCIENCE AWARDS

Navy Names National Science Award Winners

Many young people in America are learning first hand that the United States Navy is more than just ships at sea. Those students with a scientific or engineering bent, particularly, are learning that what sparks their interest in the high school science lab could, perhaps, lead to an achievement worthy of Navy recognition.

How the Navy recognizes such talent is through its Navy Science Awards Program. The Chief of Naval Research invites top award winners of state and regional science fairs to prepare and submit scientific papers which are judged by a panel of Naval Research Reservists. These judges are eminent in their respective fields and represent a cross-section of scientific and engineering disciplines in the civilian community.

This year, 18 winners and six alternates were recognized from among several hundred competitors, and they were awarded trips to scientific-oriented activities in London, Japan, and Hawaii, sponsored by the Chief of Naval Research and the Navy's Oceanographer.

London International Youth Science Fortnight

One student was selected to participate in the London International Youth Science Fortnight, a multi-nation program of student participation, lectures by eminent scientists, and visits to industrial and research establishments. The 22nd London International Youth Science Fortnight will be held in London, England, from July 30th to August 13th. The winner is Brian R. Greene, 18, of 25 West 81 Street, New York, New York 10024, a senior at Stuyvesant High School, New York, N.Y. His science teacher is Mr. Albert Tarendash. For his project, Greene developed methods for determining laws governing certain mathematical functions which have application to mathematics, statistics, and physics. He studied methods of proofs and proofs related to these areas.

1980 Navy Science Awards

Japanese Student Science Fair Activities (Operation Cherry Blossom)

One student was selected to attend the Japanese Student Science Fair Activities and Awards Ceremony in Tokyo, Japan, in early January, 1981. In addition to the science fair activities, this student will visit many industrial and research facilities, as well as various famous sights, in and around Tokyo. The winner is Naomi (NMN) Taylor, 17, of 53-31 213 Street, Bayside, New York 11364, a senior at Benjamin N. Cardozo High School, Bayside. Her science teacher is Mr. Robert Sarrel. For her project, Taylor investigated the ability of leeches to survive for many months on a single blood meal. She discovered that bacteria living in the intestine of the leech prevented the immediate use of the red blood

cells as a source of food and thereby provide a long-term source of nutrition.

Navy Science Cruise

Sixteen students were selected to visit Navy installations and facilities to observe practical application of research and science in the Navy. These students are called "Science Cruisers" because their tour usually includes a daylight cruise aboard a Navy ship. The 1980 Cruise will be on Oahu, Hawaii, from June 21st through June 29th. The Cruisers are:

John M. Andersland, 17, of 901 Woodingham Drive, East Lansing, Michigan 48823, a senior at East Lansing High School. His science teacher is Mrs. Leona Bronstein. Andersland's project explained the natural appearance of an unusual white-leaved African Violet. He found that the plant was unable to synthesize chlorophyll as a result of a mutation in its chloroplasts.

Kenneth G. Baird, 15, of 115 Indian River Drive, Cocoa, Florida 32922, a sophomore at Cocoa High School. His science teacher is Mr. Ned Steel. For his project, Baird designed, constructed, and evaluated an ion thruster space propulsion system.

Robert S. Baker, 18, of 12 Kay Street, N. Grafton, Massachusetts 01536, a senior at Grafton Senior Memorial High School. His science teacher is Mr. Art Cormier. Baker studied high energy particles during solar nuclear reactions. He determined the minimum amount of energy required to push magnetic flux away from the sun by observing radio emissions.

1980 NAVY SCIENCE AWARDS

David Chiang, 17, of 541 W. 211 Street, New York, New York 10034, a senior at Bronx High School of Science, Bronx. His science teacher is Ms. Mirsky. Chiang studied mathematical properties of whole numbers and proved certain properties of Euler's Phi-function. These particular functions are useful in mathematics and physics.

William F. Doyle, 17, of 3431 Arcadia Drive, Ellicott City, Maryland 21403, a senior at Centennial High School, Ellicott City. His science teacher is Mr. James Mowbray. Doyle developed an inexpensive television system to quantify photographic characteristics which normally require a more costly scanning microdensitometer to make measurements.

Among the winners are two brothers from Mayaguez, Puerto Rico. They are Albert Y. Graham, 17, and Ernesto J.F. Graham, 15, of 186-P Bellas lomas miradero, Mayaguez, Puerto Rico 00708. Albert is a senior and Ernesto is a junior at Escuela Superior Jose de Diego High School, Mayaguez. Their science teacher is Mr. Jose A. Muniz. Albert developed and evaluated two alternative practical methods for converting cheese-processing waste products into edible syrup, while Ernesto discovered that extracts of garlic will cure yeast infections in experimental animals.

James M. Harris, 18, of 107 Whispering Oaks, Seabrook, Texas 77586, a senior at Clear Lake High School, Houston, Texas. His science teacher is Mr. Capps. Harris investigated problems associated with energy shortage. He designed and tested a method to produce fuel oil from depolymerized plastics.

Edward E. Ille, III, 17, of 100 Barbados Drive, Merritt Island, Florida 32952, a senior at Merritt Island High school. His science teacher is Mr. Kenneth Marx. Ille developed a more efficient, economical, and secure method for transmitting data using fiber optics.

Anthony G. Knight, 16, of 1618 North Road, Lake Jackson, Texas 77566, a junior at Brazoswood High School, Clute, Texas. His science teacher is Mr. Danny Gioviale. Knight developed a new assay system to detect toxic chemicals. He applied the chemicals to the surface of eggs and measured the effect on embryo development.

David P. Lazarek, 17, of 215 Grace Street, Michigan City, Indiana 46460, a senior at Marquette High School, Michigan City. His science teacher is Mr. Dean G. Christakis. Lazarek developed a new method of disease analysis by measuring the electrical activity of isolated normal and cancer tissues. His test system was also used to study the actions of drugs and cigarette smoke on lung tissue.

Robinna G. Lorenz, 17, of R.R. 1, Box 36, Okeene, Oklahoma 73763, a senior at Okeene High School. Her science teacher is Mr. David West. Lorenz studied the role of vitamin E on the function of newly discovered compounds, called prostaglandins, on sexual development in animals.

Forrest L. Piehl, 16, of Route 1, Box 119, Keyser, West Virginia 26726, a junior at Keyser High School. His science teacher is Mr. Harold Walters. Piehl discovered that some plants produce root connections to different neighboring plants and thereby become parasites. These connections, previously unknown, permit the passage of nutrients and possibly disease organisms.*

Shirley K. Renuart, 17, of 3310 N.E. 23 Avenue, Lighthouse Point, Florida 33064, a senior at Cardinal Gibbons High School, Fort Lauderdale, Florida. Her science teacher is Mrs. Dorothy Henley. Renuart investigated the filtering of nutrients through soil. She determined the effects upon oxygen by filtering various materials in water canals.

Bryan A. Shirley, 16, of Route 3, Box 19, Winchester, Tennessee 37398, a sophomore at Franklin County High School, Winchester. His science teacher is Ms. Gail B. Popovich. Shirley's project, The Aerodynalog, is the study of a small fluid flow field with sophisticated control and read-out devices. The Aerodynalog is capable of demonstrating all fluid dynamics and associated phenomena.

Robert S. Taylor, 18, of 2 Douglas Road, Hude Park, New York 12538, a senior at F.D. Roosevelt High School, Hude Park. His science teacher is Mr. Floyd Holt. Taylor developed an inexpensive system for observing disturbances such as sound waves or convection currents in air and other invisible gases. His device makes the phenomena visible in four colors.

Alternate Cruisers

Six students are selected as alternates in case a primary Cruiser cannot attend the scheduled trip. These six receive due recognition of their scientific excellence through plaques awarded to their high schools and subscriptions to Naval Research Reviews, the scientific magazine of the Office of Naval Research. The Cruiser alternates are:

Billy G. Harris, 17, of 803 Woodburn Road, Raleigh, North Carolina 27605, a senior at Needham Broughton High School, Raleigh. His science teacher is Mr. A.T. Clark. Harris designed and constructed a simple optical system which can be used in studying many important chemical reactions. His device has been shown to perform as well as commercial instruments costing much more.

*Calvin K. Ho, 17, of 8541 Hudson Drive, San Diego, California 92119, a senior at Patrick Henry High School, San Diego. His science teacher is Mr. Marvin E. Blevins. Ho identified special proteins in heart cells which bind a new hormone called cyclic AMP and studied the effects of different drugs on this binding.

Rodney L. Stebelton, 17, of 6155 Coonpath Road, Carroll, Ohio 43112, a junior at Bloom-Carroll High School, Carroll. His science teacher is Mrs. Diane Gabriel. Stebelton designed and constructed a spotwelding timer control unit and added a miniature spotwelder. The welder is interfaced with the control and is demonstrated using small wires.

Gregory S. Tucker, 17, of 56 Baskin Road, Lexington, Massachusetts 02173, a junior at Lexington High School. His science teacher is Mr. Stanley G. Boynton. Tucker developed a novel method for investigating the optical characteristics of common sugar solutions. He was able to relate his results to the properties of individual molecules.

Dana (Dan) J. Vick, 18, of 2114 Telemark Lane, NW., Rochester, Minnesota 55901, a senior at Lourdes High School, Rochester. His science teacher is Sister M. Jeanine Luger. Vick experimented with lasers to create transmission and reflection holograms and multiple channel holograms using various optical component arrangements, developing techniques and worktable systems.

Barbara G. Wilkins, 18, of 608 Elmdale Lane, Springdale, Arkansas 72764, a senior at Springdale High School. Her science teacher is Mr. William Merrifield. Wilkins investigated clathrates, special types of compounds, analyzing complex interactions in organic substances. She used x-ray crystallography in her study.

*Forrest Piehl has been awarded and will be attending a summer science training research program at the University of Texas, Austin, during the time of the Navy Science Cruise. Calvin Ho, as first alternate, has been named a Cruiser.

International Science and Engineering Fair

In an effort to expand its recognition of scientific achievement among our Nation's youth, the Navy participated in the 31st International Science and Engineering Fair.

From among the 450 high school science student exhibitors, the Navy selected three finalists to participate at the London International Youth Science Fortnight and four alternates. The finalists are:

Katen K. Kegarise, 17, of 4285 Newport Court, Bettendorf, Iowa 52722, a senior at Bettendorf High School. Her science teacher is Ms. Diane Miller. Kegarise's project involved the corrosion offered by chrome plating, anodizing, and alcladding an aluminum automotive bumper alloy, when exposed to a salt environment.

Michael W. Wallace, 18, of Route 2, Box 53, Dustin, Oklahoma 74839, a junior at Wetmuka High School, Wetumka, Oklahoma. His science teacher is Mr. Jack Medlock. Wallace developed and analyzed a new method to ferment grain alcohol utilizing both solid and liquid mash.

Karen K. Ware, 17, of 1427 Boca Chica, Dallas, Texas 75232, a senior at Skyline Center High School, Dallas. Her science teacher is Dr. Robert Roe. Ware investigated the use of phase transfer catalyzed systems to induce carbene production and addition to various types of alkenes.

Alternates

Pamela L. Epstein, 17, of 1035 New Hampton Way, Merritt Island, Florida 32952, a senior at Merritt Island High School. Her science teacher is Mrs. Patricia E. Denninghoff. Epstein developed a multi-phased examination of seed germination phenomena.

Alan G. Murray, 17, of 1531 Wyndham Court Road, Santa Ana, California 92705, a senior at Foothill High School, Santa Ana. His science teacher is Dr. Claude Wiseman. Murray studied Generalized Fibonacci Sequences, sums of series with arithmetic progressions or quadratic expressions in their denominators. He discovered and proved 90 theorems and compiled a large number of transcendental numbers for sums.

Tracy L. Peters, 15, of 1043 Cardiff, Casper, Wyoming 82601, a sophomore at Kelly Walsh High School, Casper. His science teacher is Mrs. Jennifer Grooms. Peters developed two hypersonic vehicles using calculations, a subsonic wind tunnel and a hypersonic wind tunnel.

Martin S. Zand, 17, of 1098 Yorktown Drive, Ann Arbor, Michigan 48105, a junior at Ann Arbor Huron High School. His science teacher is Mr. Wesley Cowell. Zand studied the compression plating of oblique fractures of tubular bone which analyzed the stresses induced by such plating and plating materials.

For further information on the Navy Science Awards Program, contact:

Office of Naval Research
Mrs. Eleanor M. Cook
Project Officer
Navy Science Awards Program
800 North Quincy Street
Arlington, VA 22217
(202) 696-5031

7

ARMY SCIENCE AWARDS PROGRAM:

Mrs. Anne Taylor
U.S. Army Research Office
P.O. Box 12211
Research Triangle Park, N.C. 27709

(919) 549-0641

AIR FORCE SCIENCE AWARDS PROGRAM:

(New Coordinator ordered in; not yet arrived)
Office of Air Force Information
Community Relations Division
Room 4A120, Pentagon
Washington, D.C. 20330

(292) 697-1127

NAVY SCIENCE AWARDS PROGRAM:

Office of Naval Research
Navy Science Awards Program
Mrs. Eleanor M. Cook
Room 915
800 N. Quincy Street
Arlington, VA 22217

(202) 696-5031

APPENDIX L

Northeast Conference on Marine Education for the
Early Adolescent

Prospectives: 2nd Draft

May 22, 1980
F.L.S.

Northeast Conference
on Marine Education for the Early
Adolescent

Introduction

The Northeastern part of the United States has been caught up in a rapid shift in economic focus since the extension of the 200-mile economic limit. Fisheries are rebounding from their years of decreasing catches, and off-shore oil drilling is more a reality off the New England and New Jersey coasts. Many adjustments in our educational system will have to be made to accomodate these new developments so that our children will understand their place in this new world. In addition, school curricula will have to change to accomodate new marine career education programs, and the general education of our future citizens for balanced development of our natural resources.

The basic knowledge of science and the social sciences and other related disciplines will play a part in future educational programs. It is important that decision-makers, chief school officers, superintendents, subject matter specialists and school committee or board members understand the nature of educating our youth about marine topics, issues and concepts which make up the body of knowledge which is presently classified as marine, or marine related.

Objectives of Conference

The Conference would examine various alternative models of science education in the marine and aquatic environments. Participants would study programs involving sailing ships and vessels;

basic curriculum used for infusion into existing courses in science, social studies, literature, etc.; after-school and weekend programs; and programs utilizing a museum or aquarium. The interpretation of these applications and their effect on various schools and existing curricula will be considered in the light of sound educational goals, methods, materials, etc.

Specially, participants will receive instruction as to how they can improve their curricula to reflect current national priorities for the marine environment. A white paper will be prepared based on the conference presentations which will include a review of presentations, reactions by the select group of administrators, school board members, curriculum specialists, and recommendations for implementation strategies.

Thus, our objectives are two:

1. To inform Northeast administrators, decision-makers, curriculum developers, etc., about variety and character of outstanding marine science education curricula and program available in 1981.
2. To assist participants making curriculum and programmatic decisions in 1980's, concerning increased emphasis on marine education.

The results of this conference will be supplied to, and hopefully, reported on, in the National Meetings of the N.S.T.A. and NMEA in 1982.

Participants in the Conference

Thirty to forty specially selected participants, qually representative of the New England states plus New York, and equally representative of educational decision-makers from Chief School

Officers (or their representatives), Superintendents, Subject Matter Specialists, teacher leaders and curriculum developers will convene at a seaside inn on the New England Coast (site to be named later).

Participants will also be carefully selected so as to involve those that are most likely to benefit from the Conference, and be able to act as change agents in their present position.

Format of the Conference

The initial period of the Conference will be devoted to defining the priorities of marine affairs in the U.S.; and what the response of schools might be.

Eight or nine representatives of major U.S. curriculum projects such as found at Texas A & M, University of Hawaii, University of Maine, and marine programs such as Sea Trek-Hawaii, Orange County Floating Laboratory, will present the philosophies, strategies of their curricula and/or programs, design features, evaluate research, intended users, advantages and disadvantages and other relevant information during a multi-mix program format. Participants will interact with peers as well as others vertically distributed in the education community.

This will provide for top-down and bottom-up discussions and unique insights. Many times educators do appreciate the problems as roles of other professional in the educational community.

Dates of the Conference

Last week in July, 1981. Because most administrators will have finished the work for the academic year, 1980-81, and be fast approaching the August doldrums, it is important to catch their minds when they do not have administrative matters nagging for attention, nor next year's concerns looming too prominently.

Follow-up Session - 2 days: October, 1981, Woods Hole Oceanographic Inst.

Submission of Proposal

Proposal drafted and submitted for the NMEA. The Marine Science Institute, Salem State College, will serve as fiscal agent for disbursing funds, and administering the grant under the supervision of the President of the NMEA.

Deadline for proposal: on or about January 9, 1981, maximum limit \$30 k.

Planning Committee and Time Schedule

Proposal will be prepared by a committee chaired by Frank L. Sullivan. The committee will have representation of the target populations described above. Mr. Charles Clark, Chairman of Chief School Officers' sub-committee on marine education will represent that group; Mr. Robert Abrams, President of NEMEC and NMEA, also a teacher leader, will represent that population. In addition, planning will be done in cooperation with NMEA Board of Directors.

Evaluator will be appointed upon award of grant to prepare evaluative report to NMEA and NSF on the potential impact of the project and how successful the project was in realizing goals.

- | | |
|-------------------|--|
| June 15, 1980: | Prospective submitted to Board for review, corrections, additions, etc. |
| July 1 - 30: | Needs Assessment Questionnaire to target populations. |
| August 5, 6: | Proposal presented to Board of NMEA for review and approval |
| October-November: | Proposal printed in quantity; distributed to Salem State College Grant Review Board; distributed to NMEA Board members for final approval. |

January, 1981: Submitted to NSF-Information Dissemination for Science Education Project, Division of Science Education Resources Improvement.

April, 1981: Award Announcement.

Next Step

Using report of this conference, papers presented at 1980 NMEA National Conference and other supportive draft proposal documentation for development in Science Education (DISE) project - a project to support and facilitate marine curricula improvement for the early adolescent, including minorities and physically handicapped.

Prospective Presenters

Phase I: Mr. Hal Goodwin, Consultant

Mr. Charles Clark, Superintendent of Schools, State of Hawaii

Mr. Edward Reilly, Assistant Secretary of Environmental Affairs, Commonwealth of Massachusetts

Phase II: Curriculum Program Presenter (tentative list)

1. Mrs. Violetta Lien, or Norma Bagnall, Texas A & M
2. Mrs. Barbara Klemm, HMSS, CPRM - University of Hawaii
3. Dr. John Butzow, NEMEP - University of Maine
4. Mr. Douglas Pendleton, Sea Trek - Hawaii and Blue Water Marine Lab
5. Mr. Warren Little, New England Aquarium
6. Dr. Irwin Slesnick, Wetlands Project, Western Washington University
7. Dr. James Schweitzer - L.S.U. Wetland Institute
8. Dr. Les Picker - Project Coast - University of Delaware
9. Mrs. Rosanne Fortner or Dr. Victor Mayo - Ohio State University - Orange Co. Floating Lab, Orange County Public Schools, California
10. Dr. James Schweitzer, Wetland Institute, Louisiana State University

Planning Committee

1. Mr. Robert Abrams President of NMEA
2. Dr. Gregory Autry Commissioner of Public Education, Commonwealth of Massachusetts
3. Dr. John Butzow School of Education - University of Maine
4. Mr. Charles Clark Superintendent of Schools - State of Hawaii
5. Mr. Gene Crowell Superintendent, Danner Public Schools, Danners, Massachusetts
6. Mrs. Barbara Klemm HMSS Project - University of Hawaii
7. Dr. Barbara Spector Education Director, National Sea Grant Office
8. Dr. Frank Sullivan Marine Science Institute, Salem State College
9. Dr. Mickey Weiss Project Oceanology, Avery Point, Connecticut
10. Mr. Donald Young Director, FAST Project (H.J.S. Science Project), Associate Director of University of Hawaii Conference
11. Dr. James Schweitzer Center for Wetlands Resources, Louisiana State University

APPENDIX M
1981 Conference Information



Marine Education Program

Texas A&M University
COLLEGE OF EDUCATION
Department of Educational Curriculum and Instruction
Sea Grant College Program
COLLEGE STATION, TEXAS 77843

PROPOSAL TO NMEA BOARD AND OFFICERS
FOR 1981 MEETING IN GALVESTON

DATE: August 5-8, 1981

LOCATION: Texas A&M University at Galveston

COSTS: These are the present rates and they will probably increase due to inflation.

LODGING - Dorm Rooms, suite with four people and adjoining bath, \$10.00 per person per day.

Private Dorm Rooms, (limited number available), two twin beds and one bath, \$15.00 per person per day.

Dorm fee includes linen and use of all facilities (swimming pool, tennis courts, etc.)

MEALS - \$9.00 per person per day in cafeteria, 3 meals, special meals (banquets) are extra.

BUILDING SPACE - Classroom space \$15.00-\$20.00 per room per day.

TRANSPORTATION - University vehicles 22 passenger bus, \$22.00 per day and 22¢ per mile.
Vans and Station Wagons, \$13.00 per day and 13¢ per mile.

CONTACT PERSON FOR FACILITIES:

Sam Henry
Texas A&M University at Galveston
Galveston, Texas 77553
(713) 766-3211

Once NMEA makes a decision, a package rate could be arranged.

PUBLICITY - Program, printing, mailing would be provided by Marine Information Service, TAMU at cost. Staff will contribute their services for free. Contact person:

Laura Colunga, Head
Marine Information Service
Texas A&M University
College Station, Texas 77843
(713) 845-7524

REGISTRATION - All conference registration will be handled by staff of the Marine Education Program. Contact:

Vi Lien or John Hunt
Marine Education Program
Dept. of Ed. Curriculum and Instruction
Texas A&M University
College Station, Texas 77843
(713) 845-6811

We recommend a lower registration fee. A \$40 or \$50 registration fee would severely limit the attendance of Texas Teachers. Why? Economics, they can attend the state Science Teachers Meeting for much less and receive equal or better quality. Their registration is: \$8.00 registration for members and \$20.00 for non-members (membership fee is \$7.00). Even the National Science Teachers Association and National Association of Biology Teachers have lower registration at a lower rate you could get 3 or 4 participants for each one at a \$50 registration rate.

ADDITIONAL ASSISTANCE - The Marine Education Association of Texas has volunteered then assistance. Nathan Veatch, the President had planned to be here until his wife had major surgery two weeks ago. Teachers and consultants have expressed their willingness to assist.

Contacts:

Nathan Veatch, Pres.
10517 Chambers
Houston, Texas 77034

Sandra West, Sec. - Treasure
1207 Arizona Ash
San Antonio, Texas 78232

Ken Walla, Vice Pres.
P.O. Box 1250
El Campo, Texas 77437

PROGRAM - A General Conference Chairperson or Co-Chairperson be appointed from Texas with the responsibility of coordinating the entire conference. The NMEA Board would provide the guidelines for the conference.

ADDITIONAL INFORMATION - Since no one responded to my request that the NMEA Board provide me with questions they would like answered in regards to the 1981 meeting. I have no additional information.

Submitted by: Vi Lien

VL/lrp

Galveston Island
Gulf of Mexico
Welcomes
National Marine Education Association

1981

BEGIN MAKING YOUR PLANS NOW!

Galveston Island

This island probably was first discovered by Europeans in the early 1500's. Then, and sometime after that, the island was frequented by Karankaua Indians. Little attention was paid to the island until pirates began using it as a base in the early 1800's. The most famous of the pirates operating from here was Jean Laffite.

Galveston Island, one of the long narrow barrier beaches that fringe the Gulf Coast of Texas, is a low, sandy formation about 28 miles long and from 1/2 to 3 miles wide. In its natural state the Gulf shore was bordered by an area of sand dunes rising to heights of 12 to 15 feet above the natural surface of the island. The availability of deep water along the bay side of the island led to the early development of the city of Galveston on the east end of the island. In the early days the city was protected from hurricane tides by the sand dunes along the Gulf front. The rapid development of the city in the latter part of the 19th century, especially its increasing importance as a summer resort, led to the removal of sand dunes along the beach front for fill and to permit east access to the beach. Without the dunes the city was unprotected from the fury of the hurricanes.

Galveston was established as the richest and most important city in Texas before it experienced its first great storm in 1900. There was too much to Galveston to be abandoned. After the storm swept over the island and killed 6000 people, Galvestonians persuaded the federal government to put up a stout seawall to protect the island.

Then they raised the level of the island behind that seawall, by pumping in silt and fill from the surrounding bays and channels.

The investment and effort paid off. Houston has since taken over Galveston's old status as the chief port and commercial center on the coast. But Galveston which began as a port in 1832 remains an important port and major tourist center.

GALVESTON BEACH

Thirty-two miles of beach washed by the Gulf of Mexico. Within the city, the beach is edged by hotels, motels, apartments, restaurants and amusement areas. Camping is not permitted within the city limits, but may be enjoyed along the remaining 20 miles stretch. Except for a few areas reserved for a few beachfront hotels, the beach is free.

CLIMATE

The mild semi-tropical climate is ideal any time of the year for almost any outdoor activity. The temperature Gulf waters and prevailing sea breeze keep the temperature pleasant. Average monthly daily maximum temperature is 74.5 and minimum temperature is 65.0.

HISTORY

THE STRAND - Walk along and learn about The Strand, 19th century "Walk Street of the Southwest." It's the finest concentration of 19th century iron-front commercial buildings in the nation. The Strand District has been designated a National Historic Landmark. The Strand's history is intertwined with that of Galveston and its Port. In the mid and late 1800's Galveston was the financial and cultural center of Texas and the Southwest. Thousands of immigrants arrived through the Port of Galveston and settled here or passed on to new homes throughout the Southwest. Cotton from all Texas flowed out and goods from Europe and East Coast flowed in.

EAST END HISTORICAL DISTRICT - Enjoy a riding and walking tour of a residential community listed in the national register of historic places. The architecture of this district represents a variety of styles and periods, the earliest being examples of the Greek Revival style built during the 1850's.

SILK STOCKING DISTRICT - Although this walking tour begins and ends with two of the sumptuous mansions of the post Civil War era, the district is a small modest pocket of Victorian architecture which developed near the close of the 19th century. The tour begins with Ashton Villa, a 1859 Italianate mansion. In the restored Carriage House, an extraordinary multimedia presentation, "The 1900 Storm" which tells of Galveston before the turn of the century, the terrible 1900 hurricane, its impact on the island and the remarkable recovery.

BISHOP'S PALACE - Ranked among the top 100 homes in the nation for architectural significance. It was built in 1886 at a cost of \$250,000 and today is valued in excess of \$5 million.

ACTIVITIES AVAILABLE

TREASURE ISLE TOUR TRAIN - A 1½ hour journey through the avenues of old and new Galveston. Includes Ft. Crockett, historic homes and buildings, seawall, churches, docks, shrimp fleet and yacht basin.

HORSEBACK RIDING - Sandy Hoff Stables. 1118 West Beach between 7 and 8 mile Roads. Gulf Stream Stables. 8 mile Road at W. Beach.

BICYCLE RENTAL - Riding along the seawall and through Galveston's historical districts are popular visitor activities. Single and ten-speed bikes as well as surrey-type pedal vehicles are available for rental along the beachfront.

FISHING - Over 52 varieties of fish are found in the waters surrounding the island. Angle from free and commercial piers, wade fish the surf, bays and inlets or join a charter boat excursion into the bay or out into the Gulf. Prices range from \$6.00 for a few hours in the bay to \$20.00 to \$30.00 per person for a full day offshore.

SAILBOAT RENTALS - Sunfish sailboating on Offats Bayou can be enjoyed by experienced sailors as well as beginners. Rent one of the small craft by the hour and join the fun.

MOSQUITO FLEET - More than 100 shrimp trawlers use Galveston as home port. If shrimping is good, the fleet doubles in size and each boat brings in a thousand or more pounds of shrimp daily.

MEDICAL CENTER - Hailed as one of the South's most important medical centers, the complex includes the University of Texas Medical Branch, John Sealy Hospital, Shriners Burns Institute, Craves Psychiatric Hospital, R. Waverly Smith Pavillion, Henry and Rosa Ziegler Tuberculosis Hospital, Jennie Sealy Bldg., and St. Mary's Hospital. University Blvd.

PORT OF GALVESTON - 9th to 41st Streets at Water St. Galveston is known as America's "Port of Quickest Dispatch" and offers a spectacular view of ships from around the globe. No major port in the U.S. provides faster access to deep water transit.

POINT BOLIVAR LIGHTHOUSE - Take the free ferry to Bolivar Peninsula and drive to the old Bolivar Lighthouse. Built in 1872, it's one of a few left intact.

BOLIVAR FERRY - Texas Department of Highways and Public Transportation provides free ferry service for vehicles and pedestrians between Galveston and Point Bolivar (Hwy 87) every 20 minutes. Provides an excellent view of Galveston Harbor, Seawolf Park and an op-

portunity to feed flocks of seagulls which usually sail with the ferries.

THE ELISSA - Arriving at Seawolf Park in 1979 is the Elissa, an authentic survivor of the glorious age of sail. The square rigged barque was built in 1877 and twice called on the Port of Galveston. She is the oldest ship in Lloyd's on London Register of Shipping and is the third oldest ship afloat. You can witness firsthand the painstaking restoration and finishing work which will recreate her former grandeur.

SEA-ARAMA MARINEWORLD - A unique family entertainment complex of fun, mystery, education and excitement featuring unforgettable shows and attractions. Performing Dolphin Revue, Oceanarium and Sea Lion Shows. Tropical Bird Show and much more.

THE LONE STAR OUTDOOR MUSICAL - Mary Moody Northern Amphitheater adjacent to Galveston Island State Park. Spirited portrayal of Texas' struggle for independence from Mexico as penned by Pulitzer Prize winner, Paul Green. Singing, dancing, live horses, dramatic lighting and special effects with plenty of gun powder. On alternate nights "Annie Get Your Gun".

GALVESTON ISLAND STATE PARK - This beautiful 2,000 acre tract stretches from Galveston Bay to the Gulf of Mexico. It's a favorite for bird watching and features nature trails and observation towers. Both day use and overnight facilities and hook-ups are available. Reservations for overnight facilities. For more information contact: Galveston Island Convention and Visitors Bureau

2106 Seawall Blvd.
Moody Center
Galveston, Tx 77550
(713) 763-4311

CONVENTION FACILITIES

Texas A & M University at Galveston (Formerly Moody College) is the marine and maritime college of the Texas A & M University System with degree programs in Marine Biology, Marine Engineering, Marine Science, Marine Transportation, Maritime Administration and Maritime Systems Engineering. The college consists of the School of Marine Technology, Texas Maritime Academy and Coastal Zone Laboratory. The T/S Texas Clipper, training ship of the academy, serves as a floating classroom, laboratory and dormitory for summer courses. The location provides the opportunities to utilize facilities of the local maritime and marine industries both ashore and afloat as well as field research and instruction in the nearby bay, estuarine and nearshore waters.

COST

(All prices are current and will change with our inflation)

Meals - (3) \$9.00 per day in cafeteria - Special meals are extra.

Lodging - Dorm rooms, suite with four people and adjoining bath - \$10.00 per person per day.

Private dorm rooms, (limited number available) two twin beds and one bath - \$15.00 per person per day. Dorm fee includes linen and use of all facilities (swimming pool, tennis courts, etc.)

Transportation - Houston Intercontinental Airport can be reached from any area of the United States. One can travel to Galveston either (1) by limousine - \$12.00 one way or (2) Metro Airlines \$33.00 one way, (3) rented auto (4) public transportation - bus which is fairly involved. (no more difficult than reaching the Milwaukee or Salem meeting).

OTHER INFORMATION

TEXAS-LAND OF CONTRAST - Over 200 pages of pictures, descriptions, sites to visit and other information to plan travel in Texas.

OFFICIAL TEXAS HIGHWAY TRAVEL MAP

Both of these are free from: State Department of Highways and
Public Transportation, Travel and
Information Division
P.O. box 5064
Austin, Texas 78763

STATE PARK INFORMATION - Presently there are 103 state parks and recreation areas in Texas.

FEES - Day use enter fee, \$2.00 per vehicle per day.

Campsite fees: regular - \$3.00

with electricity - \$4.00

with electricity & sewer - \$5.00

screen shelter - \$6.50

Reservation for campsites can be made at all parks with camp grounds.
For other information concerning fees and facilities of Texas State
Parks write:

Texas Parks & Wildlife
Parks Information
4200 Smith School Road
Austin, Texas 78744

APPENDIX N

Proposal for Developing the Marine Education Network

SEA GRANT COLLEGE PROGRAM/Texas A&M University

MEMORANDUM

TO: Sea Grant Directors
Harry Irwin, Marine Technology Society
George Rush, Council of Chief State School Officers
Robert Shepherd, National Sea Grant Office

FROM: Feenan, D. Jennings, Lauriston R. King,
Texas A&M Sea Grant Program

SUBJECT: Revised Draft Proposal for Developing the Marine
Education Network

The attached proposal, "Workshops to Develop the Marine Education Network", reflects an effort to respond to comments received on Dr. Spector's earlier draft proposal. Nearly half the Sea Grant directors replied and most made perceptive and constructive comments about the project even when they expressed reservations about it. Aside from specific points about style and structure, the major concerns involved the perceived loss of local program autonomy to the state education agencies; the apparent failure to make clear the connection between the goals proposed for the project and the means for realizing them; and the rather large budget.

We have addressed the first two concerns by simplifying and clarifying the proposal to involve one national and four regional workshops to introduce state education administrators to major issues and resources in marine education. We assume that to be successful these introductions will require the active participation of Sea Grant education specialists and program directors. It should be possible, however, to structure this participation in a way that is appropriate for each Sea Grant program without any jeopardy to the autonomy of the program.

In trying to sharpen the objectives of the proposal, we have also sought to eliminate the notion that Sea Grant's role and responsibilities for marine education will be displaced. On the contrary. The intent is to use the strengths and resources developed by and available through Sea Grant in marine education and to transfer these to a very large group of prospective users. Sea Grant will continue to play the key role through the support to specific projects in marine education. But the realities of funding and manpower dictate that a broader network be developed to insure that the products from these projects receive the broadest possible circulation. We see the proposed activities as an important step in the development of this network.

We haven't had much success with the budget, but look forward to your comments and recommendations to help us put together a bit more frugal effort.

As we indicated in our May 14, 1980 letter, our plan is to receive and review your comments on this version, and, pending any

extremely negative reactions to this draft, revise it for final submission to the National Sea Grant Office. We would very much appreciate hearing from you by mail or phone (713/845-3854) by August 22 so that we might take the necessary next steps before the start of the fall semester.

xc: Dr. Spector

ABSTRACT

This proposal seeks support for one national and four regional workshops to familiarize state marine education coordinators with marine-related materials, organizations, and programs necessary for the diffusion of marine education in their school systems. The goal of the project is to assist those responsible for translating broad policy commitments made by the Council of Chief State School Officers and the National School Boards Association into action by linking specialists in marine education with state educational administrators.

The 18 month effort will be housed in the Washington, D.C. offices of the Marine Technology Society and be guided by an advisory committee of Sea Grant Program directors, the executive directors of the Marine Technology Society and the Council of Chief State School Officers, and the education specialist from the National Sea Grant Office.

INTRODUCTION

During the past two decades interest in the relationship between man and the oceans has grown steadily. In recognition of the growing importance of the oceans in human affairs there is an emerging consensus among educators that there is a need to build marine related concerns into education programs. For example, participants in 26 workshops in 16 states agreed that:

Without some basic understanding of such a primary aspect of life as the importance of the oceans and freshwaters to health, fortune and the quality of life, people are ill-equipped to participate in or influence vital decisions affecting their own welfare. Therefore, education which does not treat the world of water in proper balance and perspective is incomplete.*

* Harold L. Goodwin and James G. Schaadt, The Need For Marine and Aquatic Education - To Inform Americans About the World of Water. University of Delaware, 1978.

The goals of a marine education program are:

To develop a public which has a basic understanding of the marine and aquatic components as part of the whole environment, and their importance to American life and society.

To create a public with an awareness and sense of responsibility for water; to evolve a new "water ethic" embracing the proper uses, protection, and conservation of the oceans, the coastal zone, and freshwater resources.

To motivate people to take part in decisions affecting the sea and freshwater while equipping them with principles and information necessary to evaluate problems, opportunities and events. **

The increased importance and visibility of marine and coastal education has been reflected in agreements between federal agencies and in policy statements by education associations. On August 25, 1977, officials from the United States Office of Education and the National Oceanic and Atmospheric Administration signed a Memorandum of Agreement to establish a formal cooperative relationship. Under the terms of the agreement the agencies committed themselves to design a national strategy for marine and coastal education. The goal is to stimulate involvement and exchange between traditional education agencies, institutions, organizations, and existing marine and coastal-oriented institutions and programs (Attachment 1).

The need to pursue these goals was explicitly recognized in a 1979 policy statement issued by the Council of Chief State School Officers (CCSSO) which acknowledge the "responsibility to infuse the instruction of marine and aquatic topics into a traditional landbased and oriented education process." In addition to the adop-

**

The Need For Marine and Aquatic Education - To Inform Americans About the World of Water.

tion of this policy statement on water-related education, the CCSSO formed a Marine Education Committee, and established a network of marine education coordinators in 40 state (Attachment 2). Appointment of these coordinators represented a major commitment to marine education, particularly since the shrinking resources available to support state agency staff over the past several years has caused severe reductions in staff and programs (Attachment 3).

Sea Grant has an opportunity to enhance and accelerate its responsibility for marine education by working with these education organizations. The Sea Grant network is in unique position to provide CCSSO state marine education coordinators and subject matter specialists with the information needed to infuse marine education throughout the United States. These education organizations occupy strategic positions in state public school systems. With their enthusiastic adoption of a policy to promote marine awareness, they can play a critical role in introducing teachers to marine education materials, many of which have been developed with Sea Grant support.

PROJECT GOALS

1. To enable Sea Grant to carry out its responsibilities for marine education by promoting and developing a network or community of individuals from Sea Grant, professional marine-related organizations (like the Marine Technology Society and the National Marine Education Association) and other professional education organizations, federal agencies, and state education specialists, capable of sustained efforts in the diffusion of marine education throughout all areas of the K-12 curriculum.

2. To introduce the state's education decision-makers, representatives from professional education organizations, and the Department of Education, to the need for marine examples in their K-12 curriculum.
 3. To introduce and disseminate information to the CCSSO's marine education coordinators and professional education organizations on K-12 marine education materials, resources and marine education specialists which are available from Sea Grant and other programs.
 4. To provide an opportunity for the discussion and exchange of information on the best means to disseminate K-12 marine education methods, materials and resources to classroom teachers in traditional subjects as well as in special areas such as bilingual, gifted and talented, handicapped, career or migrant education.
 5. To work towards developing a focal point and mechanism (an office, possibly in MTS) to continue to advertise, promote, and disseminate marine education materials nationwide; to act as an informed and effective broker between teachers in their state and local systems and those with special skills in marine education (Sea Grant education specialists and others); and to sponsor continuing education programs in marine education.
- The first step toward realizing these goals will be to organize one national workshop and four regional workshops involving Sea Grant directors and educational specialists, CCSSO state marine education coordinators, and representatives from professional education organizations with marine interests. This will require 18 months of full-time effort by the Principal Investigator.

Participants at the National Workshop will include:

CCSSO's marine education coordinators;

Representatives from professional education organizations such as the National Marine Education Association, National Education Association, National Science Teachers Association, National Association of Biology Teachers, and the Council for the Social Studies;

Representatives from professional marine-related organizations such as the Marine Technology Society;

Representatives from federal agencies such as the National Science Foundation, Department of Education, and Department of Energy;

Representatives from the National Sea Grant Office and the states' Sea Grant education specialists.

Each participant will receive a marine education packet which will include pertinent information about organizations, materials, subject matter specialists, programs, and other available resources.

National Workshop Agenda Topics

Likely agenda topics for the national meeting include:

- Needs, goals and objectives of marine education
- The role of the National Sea Grant Program
- Organizations involved in marine education
- Marine education materials, specialists, and resources available to CCSSO marine education coordinators
- Special problems of inland states in promoting marine awareness

Problem of lack of marine examples in K-12 textbooks in all subject areas

Strategies for the dissemination of marine-related materials to the states and classroom teachers

Opportunities in the major regions of the United States
 Discussion of additional needs in marine education and
 possible solutions

Development of national marine education network
 Development of a focal point-an office for marine educa-
 tion

Identification of agenda items for regional workshops

Regional Workshops

In order to solidify the gains made during the national workshop, workshops are planned for each of four major regions of the United States. These sessions will address issues with particular relevance to the East, West, and Gulf Coasts, and Great Lakes, and bring together educators from land-locked states with the coastal state marine education specialists in those regions. The agenda will be determined from the discussions during the national workshop and the needs of each region. Successful conduct of the regional workshops will require the same kinds of phased preparation as the national workshop. We are not requesting travel funds for the regional workshops. Table I presents a tentative schedule for the workshops.

Sea Grant support for these training workshops will fulfill a 1978 commitment made by the National Sea Grant Office to provide training for the CCSSO State Marine Education Coordinators and to introduce them to the broader marine education community. For Sea Grant, which has the primary statutory responsibility for marine education in the nation, the development of a nation-wide network of marine education coordinators provides a partial solution to the problem of building marine awareness in both coastal and inland

TABLE I
Schedule of Work
By Month of Project

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18

Organize National Workshop & Distribute Background Material																		
Hold Workshop *																		
Publish Workshop Proceedings *																		
Implement Recommendations *****																		
Organize Regional Workshops *****																		
Hold Workshops *****																		
Implement Recommendations *****																		

Organize National Workshop
& Distribute Background
Material

Hold Workshop *

Publish Workshop Proceedings *

Implement Recommendations *****

Organize Regional Workshops *****

Hold Workshops *****

Implement Recommendations *****

states without creating new Sea Grant Programs or imposing an unmanageable burden on existing ones.

PROJECT REPORT

The final phase of the project will be preparation of a report to be published by the Marine Technology Society. It will include the reference materials distributed at the workshops, plus a review of the major issues emerging from workshop discussions and proposed strategies for addressing these issues.

ESTABLISHMENT OF MARINE EDUCATION DISSEMINATION NETWORK

An important component of this program, and one which will require a considerable amount of time, involves working with the staffs and officers of the U.S. Department of Education, CCSSO, NASB and the professional education associations to establish working relationships that will ensure a strong continuing system for the transfer of marine educational material and techniques in the future. The enthusiastic support for consolidating the ties between marine and public school educators through Sea Grant is evident from the attached letters from the President and the Executive Director of the Council of Chief State School Officers and the Marine Technology Society (Attachments 3 and 4).

PROJECT MANAGEMENT

Project planning and implementation will be the responsibility of the Principal Investigator acting with the advice and counsel of an Advisory Committee. The Committee will include a representative from the Department of Education, Sea Grant Program directors from Texas A&M University, Massachusetts Institute of Technology, Ohio State University, Oregon State University, and the University of Maryland; the National Sea Grant Program education specialist; and the Executive Directors of the Marine Technology Society and the

Council of Chief State School Officers.

The Principal Investigator will work from the Washington, D.C. offices of the Marine Technology Society (MTS). MTS, a professional organization whose membership spans the range of interests in marine affairs, has education and information dissemination as one of its primary activities. Basing the project at MTS serves two purposes. First, its location is convenient to (but sufficiently detached from) the National Sea Grant Office, as well as major transportation facilities, and it offers the administrative support needed to plan and conduct the proposed workshops. Second, this arrangement will enable MTS to nurture a long-term goal of becoming a focal point for marine education in the United States, particularly through an active program of publication and dissemination (Attachment 4). MTS plans to provide staff and funds to continue the marine education network at the end of this project.

ROLE OF PRINCIPAL INVESTIGATOR

The Principal Investigator will:

- Compile the marine education packets and background for national workshop;

- Develop a workshop agenda on the basis of consultation with Sea Grant Directors, marine education specialists, state marine education specialists and interested representatives from organizations like the National Marine Education Association, and the National Association of Biology Teachers;

- Coordinate the national and regional workshops;

- Evaluate the national workshop and compile the report of the workshop;

- Plan regional workshops in close collaboration with Sea

Grant Directors, Sea Grant Education Specialists, and CCSSO State Marine Education Coordinators from the respective regions;

Evaluate and compile the reports of the regional workshops;

Incorporate the information and evaluations from the conference into a system for dissemination and exchange of marine education information across the nation;

Work with the staffs and officers of Department of Education CCSSO, NASB, and the professional education associations to firmly establish working relationships to ensure the continuation of the network.

FINANCIAL ADMINISTRATION

Administrative aspects of the project will be coordinated by the Texas A&M University Sea Grant College Program.

THE PRINCIPAL INVESTIGATOR

The Principal Investigator, Dr. Barbara Spector, was instrumental in promoting awareness of the needs and opportunities for marine education during her tenure as education specialist in the National Sea Grant Office. She has extensive experience as a public school teacher, administrator, and educational researcher, and has had a strong personal interest in science and environmental education. Her familiarity with the goals of the Sea Grant Program, the nature of the public school institutional structure, and knowledge of specialists in marine education make her especially well qualified to plan and organize these sessions (See attached resume).

BUDGET

The budget requests full support for the Principal Investigator for 18 months, travel and per diem for an estimated 90 participants at the three-day national workshop, and publication costs. It is assumed that travel for Sea Grant directors and education special-

ists will be provided by the respective Sea Grant Programs. No travel funds are requested for the regional workshops. We believe that participation by the Sea Grant education specialists can be provided by the individual Sea Grant Programs as part of the responsibility of those specialists and the participation by CCSSO State Marine education coordinators as part of their state responsibilities.

NOAA FORM 90-4
(2-74)U. S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATIONFORM APPROVED:
O.M.B. NO. 41-R2779
EXPIRES: 12-31-78

SEA GRANT BUDGET

GRANTEE

Texas A&M University

GRANT/PROJECT NUMBER

PRINCIPAL INVESTIGATORS

Barbara S. Spector

DURATION (months)

18

A. SALARIES AND WAGES

		MAN-MONTHS	SEA GRANT FUNDS	GRANTEE SHARE
1. SENIOR PERSONNEL				
a. I(Co) Principal Investigator	18.0		61,248	
b. Associates (Faculty or staff)				
Sub Total			61,248	
2. OTHER PERSONNEL				
a. Professionals				
b. Research associates				
c. Research asst. grad. students				
d. Prof. school students				
e. Pre-Bac. students				
f. Secretarial-clerical			19,500	
g. Technical-staff				
h.				
Total Salaries and Wages			80,748	
B. FRINGE BENEFITS (when charged as direct cost)		15%	12,112	
Total Salaries, Wages, and Fringe Benefits (A and B)			92,860	
C. PERMANENT EQUIPMENT			1,000	
D. EXPENDABLE SUPPLIES AND EQUIPMENT				
E. TRAVEL				
1. Domestic - U. S. and its Possessions (inc. Puerto Rico)	1. 42,500			
2. International	2.			
Total Travel			42,500	
F. PUBLICATION AND DOCUMENTATION COSTS			6,000	
G. OTHER COSTS				
1. Computer Costs				
2. Institutional memberships in MTS				13,751
3. Membership in NMEA				408
4. Telephone			3,600	
5. Postage			1,500	
6.				
7.				
8.				
9.				
10.				
Total Other Costs			5,100	
TOTAL DIRECT COSTS (A through G)			147,460	14,198
INDIRECT COSTS	(On Campus % of)			
	(Off Campus % of)			
Total Indirect Costs				
TOTAL COSTS			147,460	14,198
ROUNDED TO			147,500	14,200

Attachments

1. U.S. Office of Education - National Oceanic and Atmospheric Administration Memorandum of Agreement
2. Marine Education - Report to the Council of Chief State School Officers-November 13, 1979.
3. Letter from Mr. George Rush to Mr. Freenan D. Jennings, June 10, 1980.
4. Letter from Captain Harry Irwin to Mr. Freenan D. Jennings, May 28, 1980.
5. Vita - Dr. Barbara S. Spector.

APPENDIX 1

Memorandum of Agreement
Between
The United States Office of Education and
The National Oceanic and Atmospheric Administration

The purpose of this memorandum is to establish a formal cooperative relationship between the United States Office of Education and the National Oceanic Atmospheric Administration which will result in mutually beneficial information exchange and interagency activities designed to stimulate a wide range of activities at the Federal, State, regional, and local levels between marine and coastal related fields and the educational continuum and which will further the respective agencies' missions. The end purpose of these joint activities is to encourage the development of an integrated and coordinated national, state, regional, and local marine environment education program.¹

To this end, the following types of activities, arrangements, and understandings will be jointly pursued. Reimbursement as appropriate will be made when the National Oceanic and Atmospheric Administration or the United States Office of Education renders service to assist the other agency in performing its functions.

I. The United States Office of Education will assist the National Oceanic and Atmospheric Administration in the design of a national strategy for marine and coastal education. This strategy will be

¹The term "marine environment" means the coastal zone, as defined in Section 304 (1) of the Coastal Zone Management Act of 1972 (16 U.S.C. 1453 (1)), the seabed, subsoil, and waters of the territorial sea of the United States; the waters of any zone over which the United States asserts exclusive fishery management authority; the

set forth in a concept/policy paper. The paper will contain philosophy, definitions, short and long range strategies and recommendations for moving marine and coastal education forward.

II. A primary purpose of this agreement will be to further the intent of both agencies to create as much involvement and interaction as possible between traditional education agencies, institutions, organizations, and existing marine and coastal oriented institutions and programs.

III. The United States Office of Education will encourage State department of education and related educational organizations at the State and regional levels to work closely with Sea Grant institutions and those other agencies institutional organizations concerned with marine and coastal education and related employment opportunities.

IV. When feasible, representatives of each of the agencies will accompany representatives of the other in visiting or reviewing marine and coastal education or related education projects at organizations or institutions sponsored by either agency.

V. Proposals received by each of the agencies and relating to marine and coastal education would be referred to the other for information, comment or review.

VI. To help carry out this agreement, each agency will designate a management coordinator.

VII. The assistance and support of the National Advisory Committee on Oceans and Atmosphere, the National Academy of Science, the National Academy of Engineering, the Council of Chief State School

¹waters of the high shelf (as created by Public Law 94-461, Section 203(6) of the National Sea Grant Program Act).

Officers, the National Ocean Policy Study Committee and other appropriate Congressional and Executive offices will be sought on behalf of both agencies.

/s/ Ernest L. Boyer
United States Commissioner
of Education

/s/ Richard A. Frank
Administrator, National
Oceanic and Atmospheric
Administration

August 25, 1977

MARINE EDUCATION
Report to the
Council of Chief State School Officers
November 13, 1979

The Marine Education Committee discussed current status and future plans for the implementation of a network of state marine education coordinators. The network is designed to provide assistance in infusing a knowledge and awareness of the importance of the world of water in all areas of the curriculum. Forty states have named coordinators, and we are looking to the Department of Education and the National Oceanic and Atmospheric Administration Sea Grant to provide technical and financial assistance in convening necessary training workshops for these coordinators.

Representatives from these two federal agencies presented status reports of the organizational progress in providing assistance to the state education agencies and were encouraged to develop plans to ensure that the impetus created by the establishment of this network can be maintained by action in the near future. These training workshops should be designed to meet the following objectives:

Explore the role of the marine education coordinator within their state;

Explore the role of the marine education coordinator as part of the National Marine Education Network;

Provide an update of the state of the art in marine education;

Develop procedures to link into existing resource systems; and

Indepth content area training to provide information on marine affairs to enable the coordinators to behave as marine subject area resource specialists.

The federal representatives agreed that the objectives were appropriate and that they would jointly initiate a detailed proposal to conduct the initial workshop in the series. The two agencies agreed to keep the Committee Chair informed as to the progress that is being made so alternatives can be considered at the earliest possible time.

June 10, 1980

Mr. Feenan D. Jennings, Director
Sea Grant College Program
Texas A&M University
College Station, TX 77843

Dear Mr. Jennings:

For the past two years the Council of Chief State School Officers (CCSSO) has directed its attention toward increasing the inclusion of education about the world of water in the public school curricula. The Council appointed a Marine Education Committee and that Committee examined alternatives and strategies to achieve the goal of assisting in bringing about a greater knowledge and understanding of the world of water and its importance to our society. Results of these deliberations included modification of existing policy statements to reflect water related education, a preliminary position paper (copy attached), and the establishment of a network of state marine education coordinators. This last action by the Chiefs collectively and individually represents a substantial commitment to the effort, as the declining resources available to support state agency staff over the last several years have caused severe reductions in staff and cut backs in programs. As indicated in the material enclosed, the conceptual framework to initialize the strategy was the formation and support of a network of components including NOAA, U.S. Department of Education, Professional Organizations and other related groups. It was anticipated that training workshops would be inaugurated to provide the basic knowledge of what resources are available and to examine methods of assisting local school districts incorporate marine and aquatic education into their existing programs.

Unfortunately the last activity has never taken place and as a result the conceptual network has not been triggered, and there is a great deal of concern that the momentum and enthusiasm generated over the last two years will be lost.

Consequently, I support the proposal as submitted and feel that the establishment of the network with appropriate staff will be instrumental in causing an impact on public schools and ultimately a marine literate society. I don't believe the budget is excessive, and in considering the potential impact of this activity and the number of students it will reach, it is a relatively modest request. As stated earlier, I think timing is critical and would encourage expeditious processing of the proposal to prevent any additional loss in the interest generated than is absolutely necessary. My feeling is shared by the CCSSO Marine Education Committee as is evidenced by their directive to request President Anne Campbell (Commissioner of Education - State of Nebraska) to convey their support of this project.

If I can be of any assistance, please feel free to contact me at your convenience.

Sincerely,

George Rush

GR:mmt
Enclosures

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MARINE TECHNOLOGY SOCIETY

1730 M Street, N.W. Washington, DC 20036 (202) 659-3251

May 28, 1980

Mr. Feenan D. Jennings
Director, Sea Grant College Program
Tecas A&M University
College Station, Texas 77843

Dear Feenan:

This is in response to your request for comment, dated May 14, on the proposed National Marine Education Network. I will make the comments as succinct as possible considering the great potential scope of activities and impact on our national awareness of marine matters - social and economic.

With regard to the substance of the draft proposal. I had frequent contact with Dr. Spector as the proposal was being drafted. The draft includes and reflects the basic MTS position and degree of participation. It is important to reiterate the need for a two year (rather than lesser period) transition program. The longer period provides assurance that the MTS can provide the planned organizational and financial structure to perpetuate the program on a self-sufficient basis starting with year three.

With regard to the MTS. The Society was established in 1963. It is international. It is incorporated, non-profit and tax exempt under Section 501 (c) (3). Education and dissemination are clearly within its charter and actively one of its objectives. Its professional interests are multidisciplinary - law, policy, science, technology, economics and other academic and functional interests. It is committed to enhancing the active role of minorities and women. Its organizational structure includes a Marine Education Division; a Standing Committee on Manpower, Professional Development and Education and a Committee on Education. Its current activities include annual Science Fair programs in the schools, student memberships, student sections (chapters) and speaking and judging programs. MTS regularly publishes and distributes a variety of printed matter ranging from specialized technical topics (diving, food-drugs from the sea), through proceedings of its annual exhibition, to career guidance information.

With regard to the MTS role in Marine Education. Most generally, the Society will provide the vehicle by which the National Marine Education Network can sustain itself after the life-giving transition. This is envisioned as an organizational, logistics and financial infrastructure which will operate within a charter and guidance which would be formulated during the transition project. Financial independence of OSG starting in year three will be achieved through publications and materials distribution and through corporate and other grants and other sources.

With regard to the propriety of the MTS role. This is not new territory. A good example, and one known to me as a member, is the American Hotel/Motel Association and its Educational Institute. You

can now find high school, continuing education and extension courses of all kinds relating to the "Hospitality Industry" widely available in local schools. MTS can do the same thing for marine education. The Director of the AH and MA Educational Institute has offered a full transfer of their knowledge and successful experiences to the MTS for this purpose.

With regard to the MTS approach. The Society, and its Executive Director, personally, are dedicated to the prospect that marine education is needed at all levels; that a broad constituency in marine matters is necessary to our future national commitment to the development and preservation of marine resources and that this project is the opportunity to achieve this.

We believe that we can support the NOAA mandate and objective to foster marine education K - 12 and that we can achieve the NOAA objectives of extending the utility of its current investment. The Society offers a major effort and the committee of major resources to that end.

With regard to some specific MTS commitments.

1. Accounting and administration - MTS has a computer based cost accounting system which would facilitate funds administration with a minimum of overhead and restrictions.
2. The Executive Director would expect to commit about 20% of his executive time and provide at least a 4½ year continuity. This has an annual value of about \$6500.
3. MTS can provide convenient office space, back-up staff support, mail services, reproduction services and security.
4. MTS would enhance communications and a sense of community through complimentary institutional memberships to the principal parties to the Network. This is estimated at 55 in number with a value of \$13,750.
5. MTS can enhance the professional and functional input through its system of technical committees and local chapter organizations.
6. MTS is experienced in organizing, publicizing, administering and conducting the types of symposia, seminars, workshops and meetings needed in the formative process and beyond, and in capturing, publishing and distributing the products hereof.
7. As the Network generates an increasing demand for Sea Grant and other marine education materials, the MTS will progressively assume the responsibility for publishing and disseminating these materials.

The above basic functions will be fleshed out in detail as the project develops and the activities become more definitive. The MTS has the management desire and capability to adapt as necessary to

achieve the objectives.

Please let me know if there is any other information which I might provide. I stand ready to be responsive, to assist in any way to see marine education in the schools become a reality.

Sincerely,

/s/

Capt. Harry Irwin
Executive Director

HEI:am

copies to: W. Hargis
A. Maxwell
G. Maton
B. Spector
H. George
R. Shephard

VITA

BARBARA S. SPECTOR
 11801 Rockville Pike, Apt. 703
 Rockville, Maryland 20852
 301-770-6148

EDUCATION

PhD. Syracuse University. Science Education: Dissertation Topic-
 Curricular Innovation and Teacher Role Change: An Exploratory Study

C.A.S. Science Education - Educational Administration

M.S. General Science

B.A. Biology

CERTIFICATION

New York State School Administration and Supervision
 New York State Teacher (Biology and General Science)

PROFESSIONAL EXPERIENCE - POSITION TITLES

Program Director for Education, National Sea Grant College Program,
 National Oceanic and Atmospheric Administration, Rockville,
 Maryland

Technical Director, United States Office of Education/National
 Oceanic and Atmospheric Administration Memorandum of Agree-
 ment, Washington, D.C.

Co-Chair, Federal Interagency Committee on Education Subcommittee
 on Environmental Education Marine Education Task Force, Wash-
 ington, D.C.

Adjunct Faculty, Syracuse University, Syracuse, New York
 Director, Central New York School Consortium for Tropical Field
 Studies, Syracuse, New York

Director, City School District Competency Based Education Project,
 Syracuse, New York

Curriculum Implementation Specialist: Special Programs and Evalua-
 tion, City School District, Syracuse, New York

Chairperson, Biology Department, Nottingham High School, Syracuse,
 New York

Teacher, Corcoran High School Syracuse, New York (General Biology,
 Project Advance Biology)

Teacher, Nottingham High School, Syracuse, New York (Subjects:
 Marine Biology, Behavioral Science, Human Pathology, Biology
 Honors Seminar, Advanced Placement Biology, New York State
 Regents Biology)

Consultant to:

New York State Education Department
 Oregon State Department of Education
 State University of New York Upstate Medical Center
 Syracuse University Special Education Course

National Aquatics School
Fayetteville-Manlius Central School District
Council of Chief State School Officers

PROFESSIONAL SKILLS

Design and execution of dissemination and implementation strategies
Management of both short and long term projects that include multiple persons and agencies
Networking - joining universities and elementary - secondary schools to community resources including aquariums, museums, and libraries; professional organizations, and government at Federal, State and local levels
Development and Utilization of human and material resources internal and external to a system
Grants management, Program development, Programs Analysis, Policy Analysis Data collection, interviewing, and Participant Observation Research Techniques
Organizational development, Needs assessment, Planning, Systems Management, Communications, Process Facilitation, Group dynamics, Conflict Management, and Problem Solving
Teaching, Curriculum development and the design, development, dissemination, and implementation of instructional systems
Ability to apply basic science background, interest in transdisciplinary education, organizational development skills, and program development and implementation skills from one science-based area to another.

RESPONSIBILITIES IN MAJOR EMPLOYMENT POSITIONS

Program Director for Education, National Sea Grant College Program
12/1/78 to present.

As Program Director for Education in the National Sea Grant College Program (NSGCP), I am responsible for the education of training component of the Sea Grant legislation for the National Oceanic and Atmospheric Administration (NOAA). Support for education and training is one of the three approaches to serve the Nation's marine interests mandated by the 1966 Federal legislation which created the NSGCP. The other two approaches are research and advisory (extension) service.

My position was undefined at the outset. It involved with a unique combination of diverse responsibilities in order to respond to needs and opportunities as they arose. Now there are two dimensions to my responsibility. One is the administration of a complex, comprehensive grants program in higher education with annual grants in excess of three million dollars. The second is to facilitate the introduction of marine education in schools throughout the U.S. at all levels (graduate school through kindergarten), in all disciplines.

In the administration of the grants program, I provide the leadership for planning, developing, initiating, and conducting this program in the 30 Sea Grant colleges and universities in the coastal states in the Nation. The local director in each Sea Grant college

and universities in the coastal states in the Nation. The local director in each Sea Grant college or university recommends proposals from principal investigators in his/her own institution as well as from other institutions of higher learning in his/her state or region, from decision makers in elementary and secondary school systems, and from the private sector. I have the responsibility for review and approval of all proposals pertaining to education. This includes proposals directed at developing professionals with skills to obtain employment in marine-related jobs, and those aimed at developing a marine-literate citizenry in the United States. I arrange for panels of volunteer peer reviewers to obtain input for the decision-making on proposals. Criteria used includes quality of work; applicability of work; most efficient use of available funds; existence of a multiplier effect; and likelihood of follow-on when Sea Grant funding ends. I evaluate the adequacy of the educational component of Sea Grant Programs throughout the network of universities. I also monitor and provide guidance on those proposals which Sea Grant supports.

To facilitate the introduction of marine education in educational institutions in the U.S., I designed, developed, and implemented a national strategy which has strengthened the university and college education/research programs at the undergraduate, graduate, and post graduate levels and developed the interface between Sea Grant and the elementary-secondary school systems of the Nation. The strategy involved the creation of an infrastructure across the country of which the National Marine Education Network (NMEN) is a major part. The NMEN consists of the following six groups: (1) marine educators from Sea Grant institutions; (2) representatives from other Federal Agencies with overlapping interests in education; e.g., Federal Interagency Committee on Education; (3) professional educators' organizations; e.g., the Council of Chief State School Officers, National Science Teachers' Association, National Schools Boards' Association, etc.; (4) Marine Education Coordinators from State Education Agencies; (5) professional societies; e.g., Marine Technology Society; and (6) the National and regional Marine Education Associations. I conceived the idea of the NMEN and worked with senior executives in the component groups to bring it to fruition. I provided the leadership which encouraged the groups to embark on marine initiatives which strengthened their programs.

Given the general mandate to develop Marine Education under the NSGCP Act, I translated this into specific policy and program that are being implemented throughout the Nation via the 30 Sea Grant programs and the other organizations and agencies mentioned above. My tasks required writing policy papers; forming communications networks; establishing face-to-face interaction with senior executives in numerous segments of the government, education, and business communities in the U.S.; conducting national and local data gathering workshops; making presentations at international, national and regional professional conferences; and participating in site visits to institutions of higher education.

As essential responsibility in my present work has been to con-

sult with and negotiate with officials in such institutions as Sea Grant colleges and universities; State Education Agencies, including Commissions of Education and State Superintendents of Public Instruction; Federal agencies; such as the U.S. Office of Education, National Science Foundation, Federal Interagency Committee on Education, National Advisory Committee on Oceans and Atmosphere, National Ocean Policy Study Committee, and other related Congressional and Executive offices; international, national and local Marine Education Associations; professional educators' organizations such as the Council of Chief State School Officers, National School Boards' Association, and others. In addition to the policy makers and administrators in the preceding organizations, I have also maintained a close association with the Nation's leading marine scientists. One particularly important and fruitful aspect of my position has been to meet with various Congressional subcommittees on Education to brief them on the relationship between the Department of Education and the Department of Commerce regarding marine education.

The documents I wrote include: (1) policy formulation papers setting forth national strategies to (a) improve function and communication within the Sea Grant network and between Sea Grant and those outside the network, and (b) infuse marine education in America schools, graduate school through kindergarten; (2) as assessment of needs in marine education; (3) a survey of current activities in marine education; and (4) recommendations for long and short range direction for marine education.

The communication networks formed facilitated the information exchange from one Sea Grant program to another, and from Sea Grant to other groups in the NMEN.

The data-gathering workshops assessed the needs of marine education and elicited feedback to strategies proposed to meet the needs.

Presentations at professional conferences created an awareness of the need for marine education and delineated my nationwide strategy as a model that could be adapted to implement marine education in Latin American countries and in various regional and State efforts in the U.S.

Face-to-face interaction was designed to create as much involvement as possible between traditional education agencies, institutions and organizations, and existing marine and coastal-oriented institutions and programs.

Other formal duties include co-chairing the Federal Interagency Committee on Education Subcommittee on Environmental Education Marine Education Task Force, and the implementation of the memorandum of agreement between NOAA and the United States Office of Education.

Curriculum Implementation Specialist, Syracuse City School District
9/78 to 11/31/78

Designed and implemented special programs for gifted students throughout the school district from kindergarten through grade 12. Programs included multidisciplinary studies in the field (away from home for extended periods). Trained teachers to use the community as a resource in their teaching and to incorporate field study format.

Educational consultant - Self employed during nonschool time

Teacher training: Curriculum Development: Program Development: Development of strategies to initiate programs in Competency-Based Education, and Marine Education: Implementation of change in programs and procedures for State Education Agencies, local school districts, Professional Organizations of Educators and Administrators, Specialized Training Organizations such as the National Aquatic School.

Teacher, Syracuse City School District August 1961 to August 1978

Teacher of: Biology, Advanced Biology, College Biology, Marine Biology, Human Pathology, Behavioral Science. Developed and implemented high school curricula in Field Study in Marine and Terrestrial Subtropical Ecology; Marine Biology; Human Pathology; Behavioral Science; Transdisciplinary Advanced Biology; Individualized Audio-tutorial General Biology; etc. Have extensive experience teaching students ranging from disadvantaged to academically gifted, including articulation of life science education programs in K-12, college and medical school. Introduced use of community resources for public school education, experiential/experimental education, process education, competency-based education, career education, and marine education.

GRANTS and AWARDS

National Science Foundation Academic Year for Leadership Development in Curriculum Implementation
New York State Education Department, Planning Grant for Competency-Based Education
New York Sea Grant Institute for Individualized Transdisciplinary Marine Education Module
Syracuse and Onondaga County Community Foundation for Student Field Studies at the Marine Biological Laboratory, Woods Hole, Massachusetts
New York State Title IVC Individualized Instruction Replication Grant
National Science Teachers Association Action Grant for District II Workshop: Process Approach to C.A.G. Goals and Policies
National Association of Biology Teachers for Regional Seminar on Micro-Genetics
Marine Technology Society, Education Committee Chairperson
Reviewer for the American Biology Teacher journal
Delegate to New York State Governor's Conference on Libraries

PUBLICATIONS

Spotlight on Teaching: "Marine Education Comes of Age," NEXUS,

Central New York School Study Council and School Board Institute,
April, 1980, Vol. 2, No. 3

Druger, Marvin and Spector, Barbara S. "Implementation of a College
Biology Course in High School, "The American Biology Teacher,
Oct. 1979, Vol. 41, No. 7.

"Landlocked Marine Biology," Bulletin, Science Teachers Association
of New York State.

"New York Teenagers Study in the Bahamas," Coastlines, New York
Grant Institute.

Spector, Barbara S. and Hellenbeck, J. Adventures in Field Study
with SEA: A Teacher's Manual, May 1978, Science Education
Afield, Syracuse, New York.

Publications Related to the National Sea Grant College Program

Spector, Barbara S. Proceedings of National Sea Grant College Pro-
gram Marine Education Leaders' Meeting February 21, 22, 1979,
April 1979, Office of Sea Grant, Rockville, Maryland.

Spector, Barbara S. Proceedings of National Sea Grant College Pro-
gram Marine Educators' Meeting August 12, 13, 1979, Oct. 1979,
Office of Sea Grant, Rockville, Maryland.

Spector, Barbara S. Marine Education in the National Sea Grant Col-
lege Program, Office of Sea Grant Annual Retreat Report, Dec.
29, 1979.

Spector, B. et al. Conceptual Framework for Marine Education, July
1979, Office of Sea Grant, Rockville, Maryland.

Spector, Barbara S. The Sea Grant Marine Education Initiative for
K-12 and Related Teacher Training, National Sea Grant College
Program, National Oceanic and Atmospheric Administration, Rock-
ville, Maryland (in press).

Spector, Barbara S. Outreach: Creating a Marine Literate Populace:
The Sea Grant Marine Advisory Service and Marine Education In-
terface with the Community, Office of Sea Grant, Rockville,
Maryland (in press).

Publications Related to Syracuse City School District

Woods Hole BioNews, City School District, Syracuse, New York.

Human Pathology Program, City School District, Syracuse, New York.

Independent Study Genetics Module, City School District, Syracuse,
New York.

Curriculum Instruction Manual for Students of Biology, City School
District, Syracuse, New York.

Student Self Evaluation for Classroom and Home Study, City School
District, Syracuse, New York.

Student Self Evaluation for Laboratory Activities, City School
District, Syracuse, New York.

PRESENTATIONS AT PROFESSIONAL CONFERENCES

Within Sea Grant Network

- a) Designed and facilitated these conferences (each resulted in publications significant to the development of Sea Grant education policy and marine education activities outside of Sea Grant):

National Sea Grant College Program Marine Educators' Meeting,
August 12-13, 1979

National Sea Grant College Program Writing Team for Conceptual Framework for Marine and Aquatic Education

National Sea Grant College Program Marine Education Leaders' Meeting, February 21-22, 1979

- b) Formal presentations

Office of Sea Grant Annual Retreat (1979): "Marine Education in the National Sea Grant College Program"

National Sea Grant College Program Annual Meeting (1979): "Sea Grant Education Activities Update"

Cooperative NOAA Marine Advisory Service State Program Leaders Conference: "Marine Education - Sea Grant Directions, Accomplishments, and Goals"

Florida Marine Advisory Program Planning and Development Meeting: "The Role and Scope of Marine Education in Florida Advisory Services"

Outside Sea Grant Network

National Science Teachers' Association: "A World of Water: Sea Grant and Marine Education:

International Marine Education Seminar, University of Southern California "How to Develop a National Marine Education Program (and Institution Building)"

Alaska Science Teachers' Association - National Education Association/Alaska: "Fresh Water and Marine Biology as Part of General Marine Education"

Council of Chief State School Officers Annual Meeting (1979)--Marine Education Committee: "Sea Grant Status Report"

Science Teachers Association of New York State: "Federal Funding and the Classroom Teacher"

National Science Teachers Association Western Area Conference: "Marine Education is Making Waves Across the Nation! What does This Movement Mean to Teachers of Science K-College?"

National Marine Education Association, GAM Session: "Response to Proposed Office of Sea Grant Policy Statement"

National Marine Education Association: "Marine Education: The National Perspective"

New Bedford, Massachusetts School District Sea Lab Commencement Address: "Massachusetts Institute of Technology, Sea Lab, and Marine Education"

University of North Carolina Summer Workshop: "Marine Education Policies"

Pacific Region Marine Education Workshop: "Identifying and Overcoming Barriers in Curriculum Implementation"--Panel

Council of State Science Supervisors/National Science Supervisors Association: "The Supervisor as a Change Agent--Factors Influencing the Success of An Innovation"

Federal Interagency Committee on Education Sub-Committee on Environmental Education: "Ideas for Work of the Marine Education Task Force"

Council of Chief State School Officers Annual Meeting 1978--Marine Education Committee: "Investigating Methods to Increase Prominence of Marine and Aquatic Education in the Nation's Schools"

Science Teachers Association of New York State: "Self Evaluation Tools for Students in Biology"

Science Teachers Association of New York State: "College Biology in High Schools--Project Advance Model"

Science Teachers Association of New York State: "Cadavers to Collecting Vessels"

National Science Teachers Association Eastern Regional Conference: "It's a Student's Choice in the World as a Classroom: A look at the Teacher's Role"

National Association of Biology Teachers" "Innovative Practices for the High School Advanced Biology Program"

New York Sea Grant Institute Marine Education Workshop: "Marine Education for Inland Students"

New York State Geology Teachers Association: "Field Study in Marine and Terrestrial Ecology in the Bahamas"

Administrators In-Service Conference, Buffalo, New York Diocese: "Administrators and Successful Innovation"

New York State Science Supervisors Association: "Supervisory Styles--Factors Influencing the Success of an Innovation"

New York State Council of Education Association: "Communications Within Professional Organizations"

PROFESSIONAL MEMBERSHIPS

Central New York Science Supervisors Association

Marine Technology Society -Education Committee Chairperson

National Marine Education Association

National Science Teachers Association

National Science Supervisors Association

New York State Teachers Association

Science Teachers Association of New York State - past Secretary, present Director-at-large

Syracuse Teachers Association

U.S. DEPARTMENT OF AGRICULTURE
SOUTHWORTH OF U.S.A.
EAST BOND

APPENDIX 0

Proposed Budget 1980-1981

National
Marine
Education
Association

Proposed Budget 1980-1981

Ending Balance as of July 31, 1980

INCOME

Conference		5000.00
Membership (50% increase)		4331.00
General	3317.00	
Chapter	1014.00	
Stegner Memorial		
Advertising		100.00
		<u>300.00</u>

Expenditures

Supplies		500.00
Postage		150.00
Telephone		100.00
CURRENT		5350.00
Affiliations		200.00
Travel		200.00
Committees		200.00
Public Relations		1563.00
Conference		
Site (\$100 x participants)		
Program Preparation		1625.00
Allen Press		1330.00